

Mathletics

for the New Zealand
Curriculum

3

Mathematics



A 3P Learning Product

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Mathletics Student Book

Comparing numbers Year 1 Week 1

1 How many?

a  b  c 

d Tick ✓ the largest number.

2 a  b  c 

d Tick ✓ the smallest number.

3 a Circle the larger number.

832 598 251 380 260 254

b Circle the smaller number.

678 439 523 325 101 711

Mastery Checklist

1 can: ☐ identify 1-digit numbers made up of hundreds, tens and ones
☐ read and write numbers to 1,000 in numerals and words
☐ split numbers into place value in words and numbers

Multiplication Year 1 Week 4

1 Double 2.  $2 \times \square = \square$

2 Double 3.  $2 \times \square = \square$

3 How many corners?  $1 \times \square = \square$

4 How many corners?  $3 \times \square = \square$

5 How many fingers?  $3 \times \square = \square$

6 How many fingers?  $4 \times \square = \square$

7 Count by 10s.  $4 \times \square = \square$

8 Count by 10s.  $5 \times \square = \square$

New Zealand Curriculum Alignment

This edition fully aligns each student page with the refreshed New Zealand Curriculum: Mathematics and Statistics Years 0–8, 2025. The New Zealand Curriculum teaching sequence statements appear on each student page.



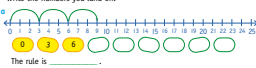
Knowledge and Practices

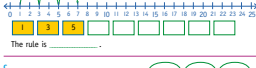
The **Mathletics Programme** develops the **knowledge** students need to build a deep understanding of mathematics and statistics — including number structures, algebraic thinking, measurement, geometry and statistics.

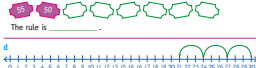
Students build their **practices** by focusing on key facts, concepts and procedures, such as patterns, place value and the structure of the base-10 system. They develop the **skills, strategies and processes** required to reason, model and solve problems. Through these practices, students apply what they know to connect ideas, identify patterns and relationships, and explain their reasoning with confidence.

Patterns on the number line Year 1 Week 5

1 Make equal jumps along the number line. Write the numbers you land on.

a  The rule is $\square \rightarrow \square$.

b  The rule is $\square \rightarrow \square$.

c  The rule is $\square \rightarrow \square$.

d  The rule is $\square \rightarrow \square$.

Looking for patterns Keep counting by 5.

0 5 10

When I count in Fives from zero, the numbers end in or .

Problem solving Year 1 Week 4

Multiplication Problems

Draw a diagram and write an equation to find the answer.

1 Deb has 3 pizzas. She cuts them into 5 slices each. How many slices of pizza are there?

 slices

2 Meg has 2 handbags, 3 backpacks and a school bag. She has 2 pens in each bag. How many pens is that in total?

 =

3 On days that start with S, Mandy read 2 whole books. How many books does she read in two weeks?

 =

I can solve a problem by: ☐ writing a multiplication equation ☐ drawing a diagram

Checkpoint 2

1  $372 + 122 = \square$

2 Use the number line. $46 - 27 = \square$

3 Use the number line. $867 - 531 = \square$

4 Circle the largest number. 253 523 325

5 Circle the smallest number. 612 602 620

6 Complete: $378, 388, \square, \square$

7 Use 2, 0, 5 to make the: a biggest number. $\square \times \square = \square$ b smallest number. $\square \times \square = \square$

8 Use the number line. $15 + 18 + 23 = \square$

Integrated Problem-Solving

Includes problem-solving that actively builds students' problem-solving capabilities.

Regular Checkpoints

Checkpoints appear both at mid-term and end of each term to review and assess key concepts.

Hands-on Activities

Various hands-on activities are included in each term, asking students to measure and make, count and compare, using objects from around the classroom or home.



Year 3 Knowledge and Practices

The New Zealand Curriculum Mathematics and Statistics 2025

Knowledge	Practices	Pages
Number — Number structures		
The whole numbers from 0 to 1,000 form a sequence. The base 10 number system is organised by place value (thousands, hundreds, tens and ones for four-digit numbers).	Reading and writing whole numbers up to 1,000, and representing them using base 10 structure	2, 3, 4, 5, 48, 54
	Comparing and ordering whole numbers up to 1,000	4, 10, 11, 49
	Recognising the place value of each digit in a three-digit number	2, 3, 4, 5, 11
Groups of 10s and 100s are useful ways to structure and count large numbers. Ten 100s can be renamed as one 1,000.	Finding the total number of objects beyond 120 by first separating them into groups (e.g. groups of 10 or 100)	6, 7, 9, 14, 16, 31, 35
Rounding to the nearest 100 depends on the value of the 10s place; a number line supports this. Numbers can be rounded to support estimation before calculating.	Rounding numbers to the nearest 10 or 100	50, 51
	Estimating the answer to a calculation	52, 160
Sequences generated by counting can overlap (e.g. counting in 2s and counting in 5s overlap for numbers that are multiples of 2 and 5). Counting in 3s produces alternating patterns of odd and even numbers. Numbers ending in the digits 0, 2, 4, 6 and 8 are even and numbers ending in 1, 3, 5, 7 and 9 are odd.	Counting forwards and backwards in 2s, 3s, 4s, 5s and 8s from multiples of these numbers	18, 19, 22, 23, 24, 109, 111, 112, 113
	Counting forwards and backwards in 10s and 100s from any whole number between 0 and 1,000	5, 6, 7, 8, 9, 10, 18, 19, 24, 110
Number — Operations		
Number facts can be derived from known facts using place value. Renaming (regrouping) is needed when adding or subtracting across place values. Column methods for addition and subtraction align digits in numbers by their place values.	Finding the complement of a number to 100	29, 53
	Adding and subtracting numbers up to 1,000	7, 8, 9, 12, 13, 14, 15, 16, 28, 30, 31, 32, 33, 35, 36, 37, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 104, 105, 106, 107, 108, 175
	Solving one-step addition and subtraction problems involving numbers up to 1,000	34, 57, 61, 70, 71, 77, 79, 80, 81, 82, 83, 125, 129
	Solving multi-step addition and subtraction problems involving numbers up to 100	126, 145, 146, 147, 148, 149
Multiplication can be completed by repeated addition, grouping, or using known facts and represented using an array. Division can be completed by equal sharing, grouping, repeated subtraction, or using known facts. Dividing by zero is impossible.	Multiplying or dividing using equal sharing, grouping, repeated addition or subtraction, or known facts	17, 18, 19, 20, 21, 63, 64, 65
	Memorising multiplication and corresponding division facts for 2s, 3s, 4s, 5s, 8s and 10s	67, 109, 110, 111, 112, 113, 150, 151, 152, 153, 154
	Multiplying a one- or two-digit number by a one-digit number	19, 20, 21, 80, 81
	Dividing whole numbers by a one-digit divisor with no remainders	63, 64, 65, 66
Number — Rational Numbers		
Fractions can represent parts of sets, regions, measurements and points on a number line.	Reading, writing and representing fractions of sets, quantities and measurements on a number line and of regions, using small denominators	94, 95, 96, 97, 98, 99, 100, 140, 141
A unit fraction represents one part of an equally divided whole. Its numerator is 1.	Counting in unit fractions up to 1	98, 99, 100
For unit fractions, the larger the denominator, the smaller the fraction.	Comparing unit fractions with denominators up to 12	102
Fractions with the same denominator can be ordered by the size of the numerator.	Comparing non-unit fractions with the same denominator up to 12	103
Equivalent fractions name the same quantity and can be identified by reasoning about equal parts. There are many ways to write one whole.	Identifying when two fractions are equivalent, using representations	101
When adding or subtracting fractions with the same denominator, the denominators remain unchanged, and the numerators are combined. Subtraction of fractions with the same denominator represents taking away parts of equal size.	Adding and subtracting fractions with the same denominator within a whole	114, 115, 116, 117
The relationship between part and whole is multiplicative, not additive.	Finding a unit fraction of a whole number by connecting to division	95, 97, 140, 141, 143
	Finding the whole when given a unit fraction by connecting to repeated addition or multiplication	142, 144
Number — Financial mathematics		
New Zealand currency is a decimal system of dollars made up of 100 cents.	Representing currency values of mixed dollars and cents without using decimal notation	68, 160, 161, 162, 163
	Making amounts of money using one- and two-dollar coins and 5-, 10-, 20-, 50- and 100-dollar notes	68, 69, 160, 161, 162, 163
Finding the total cost and giving change with money involves addition and subtraction.	Using addition and subtraction to give change	58, 70, 71, 160, 162, 163

Year 3 Knowledge and Practices

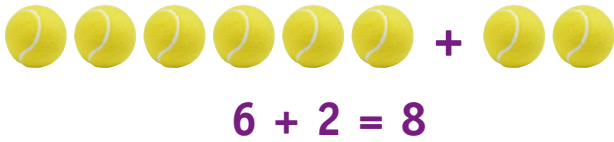
The New Zealand Curriculum Mathematics and Statistics 2025

Knowledge	Practices	Pages
Algebra — Equations and relationships		
Numbers can be compared using “greater than” ($>$), “less than” ($<$) and equals ($=$).	Checking the truth of number sentences involving direct comparisons of whole numbers up to 1,000	11, 49
	Checking the truth of number sentences and completing open number sentences involving addition, subtraction, multiplication, or division	11, 29, 109, 110, 111, 113
Copying, continuing, creating and describing a repeating pattern with two elements. Using ordinal numbers up to 5th place to describe position in a sequence.	Recognising, continuing and creating growing number patterns	10, 22, 23, 24, 25, 120, 124, 127, 128
Measurement — Measuring		
Systems of measurement have a history; different cultures use different approaches (e.g. measurement in te ao Māori is based on the human body and natural relationships).	Estimating and measuring length (cm and m), mass (g and kg) and capacity (mL and L), using tools with labelled markings and whole-number metric units	74, 75, 76, 77, 78, 84, 155, 171, 172, 173, 174, 176, 177, 178, 179
	Comparing and ordering objects using whole-number metric units of length, mass, or capacity	74, 75, 156, 171, 172, 173, 174, 177, 178, 179
Perimeter is the sum of the lengths of sides of a 2D shape.	Measuring the perimeter of polygon using metric units	135, 136, 137
Area is the measure of a region's size on a surface.	Measuring the area of rectangles using squares of equal size	130, 131, 132, 133, 134
A turn is a rotation around a point. A turn can be directional and is described using clockwise (to the right) and anticlockwise (to the left).	Turning an object or person and describing how far they have turned, using full, half, quarter and three-quarter turns as benchmarks	122, 123
Duration is the length of time between the start and end of an event. There are 15 minutes in a quarter of an hour. There are 60 seconds in a minute. There are 24 hours in a day, 365 days in a year and 366 days in a leap year. There are 52 weeks in a year. A leap year occurs every 4 years. Months are approximately four weeks long; the specific number of days in each month varies. Larger durations of time can be measured in decades (10 years), centuries (100 years) and millennia (1,000 years).	Identifying the duration of events using years, months, weeks, days, hours, minutes and seconds	89, 90, 91, 125
	Telling the time on analogue and digital clocks to the nearest 5 minutes and the nearest minute, using the language of minutes past the hour and to the hour	85, 86, 87, 88
	Describing the differences in duration between units of time	90, 91
Geometry — Shapes		
A regular polygon is a two-dimensional shape with all sides of equal length and all interior angles of equal measure.	Identifying, describing, visualising and sorting regular polygons with up to 10 sides	38, 39, 40, 41
	Identifying, describing, visualising and sorting 3D shapes, using the attributes of shapes (Yr2)	43, 44, 45
Geometry — Spatial reasoning		
A line of symmetry is the line that divides a shape or an object into two equal and symmetrical parts. Line symmetry is where one half of an object or shape is a mirror image of the other half, across a line of symmetry.	Recognising lines of symmetry in patterns or pictures, and creating or completing symmetrical patterns or pictures	42
Shapes can flip (reflect), turn (rotate), slide (translate) and be used to create patterns. (Yr2)	Flipping, sliding and turning 2D shapes to make a pattern or compose a shape (Yr2)	121, 124
Geometry — Pathways		
Directions such as forward, left and right depend on the orientation of the observer.	Following and creating a sequence of step-by-step instructions for moving people or objects to a different location, including half and quarter turns and the distance to be travelled	166, 167, 168, 170
Cardinal directions are the four principal points of a magnetic compass: north, east, south and west.	Using simple maps to locate objects and places relative to other objects and places.	167, 168, 169
Statistics — Developing knowledge from data		
A categorical variable (e.g. colour, brand) classifies objects into groups (categories). Categorical data can be counted.	Collecting categorical data and sorting the responses	157, 159
A numerical variable in data is a number that is a measure or a count.	Collecting numerical data by asking an investigative question with a response that is a count or a discrete measurement	155
Statistics — Visualisation of data		
Data visualisations are representations (including dot plots and bar graphs) of all available values for a variable that show the frequency for each value. In a bar graph, each bar corresponds to a category or number, and the height of the bar (for a vertical chart) or the length (for a horizontal chart) directly corresponds to the frequency of the category or number.	Creating data visualisations for categorical and numerical data	155, 157, 159
Statistics — Interpretation of data		
Data visualisations are representations that help reveal the story of a set of data.	Describing data visualisations using the variable name and the context and giving the frequency for each category or number	156, 157, 158, 159
	Answering questions about data visualisations, including which category has the most or least items and questions involving operations	156, 157, 158

Dictionary

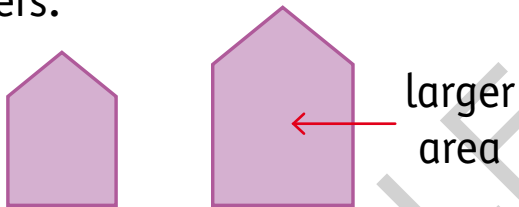
addition (+)

Six balls plus two balls makes eight balls.

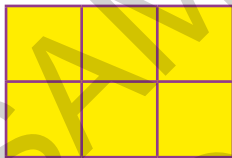


area

The amount of space something covers.



Measured in square units.
Area = 6 squares



capacity

The amount a container can hold. Measured in cups, litres (L) and millilitres (mL)

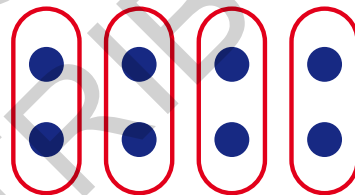


days

Sunday	Thursday
Monday	Friday
Tuesday	Saturday
Wednesday	

division (÷)

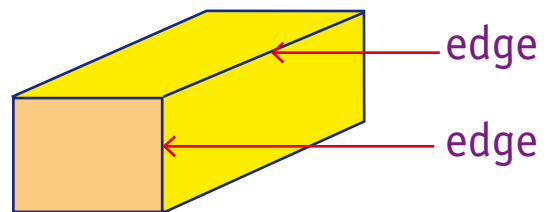
Sharing into equal groups



4 groups of 2
 $8 \div 2 = 4$

edge

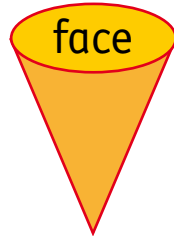
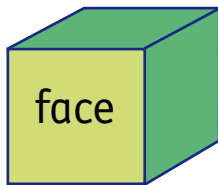
Where two surfaces meet



Dictionary

face

The flat surface of a solid object.



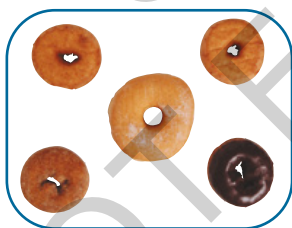
fraction

A part of a whole or a group



$\frac{1}{2}$ → numerator
→ denominator

groups



1 group of 5

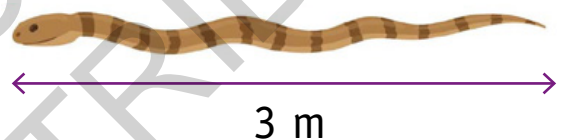
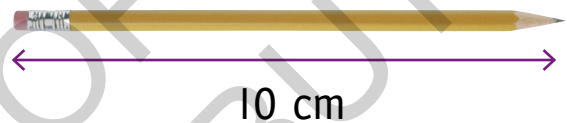


3 groups of 7



length

How long something is.
Measured in metres (m) and centimetres (cm).



mass (weight)

The amount of material in an object.

How much an object weighs.
Measured in grams (g) and kilograms (kg).



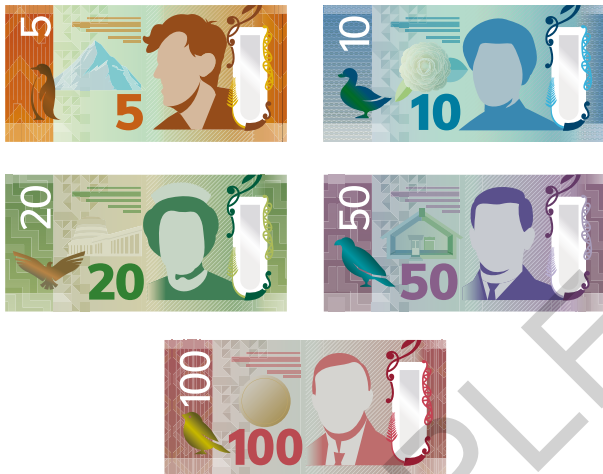
Dictionary

money

coins



notes



months and seasons

January
February
March
April
May
June
July
August
September
October
November
December

Summer

Autumn

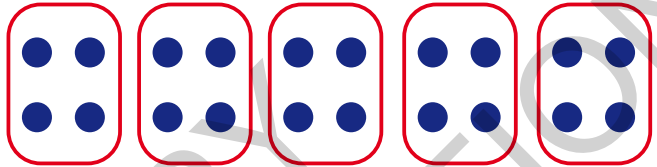
Winter

Spring

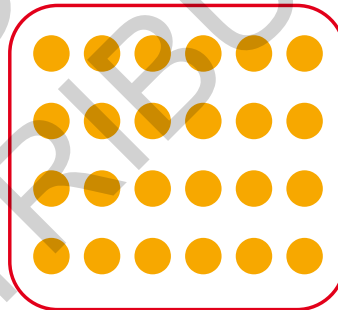
Summer

multiplication (×)

Find the total of a number of equal groups or equal rows.



$$5 \times 4 = 20$$



$$4 \times 6 = 24$$

numbers

Even numbers can be grouped in pairs evenly.



2

4

6

8

10

Odd



1

3

5

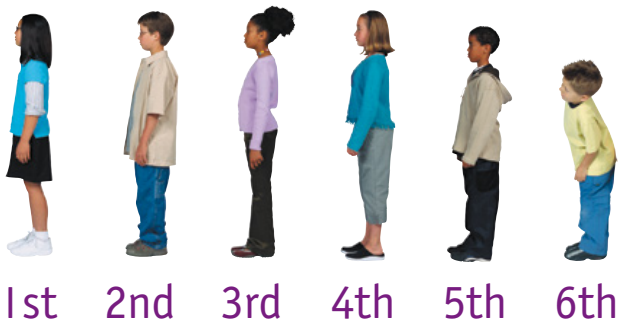
7

9

Dictionary

numbers

Ordinal numbers tell position.

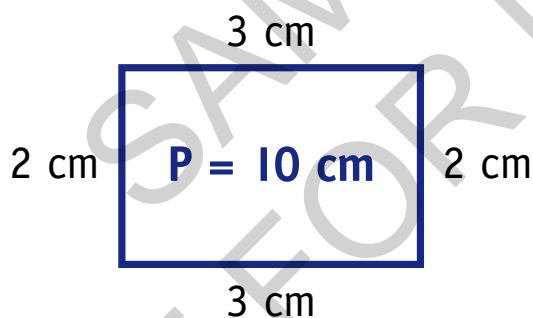


perimeter

Distance around the outside

Add side lengths:

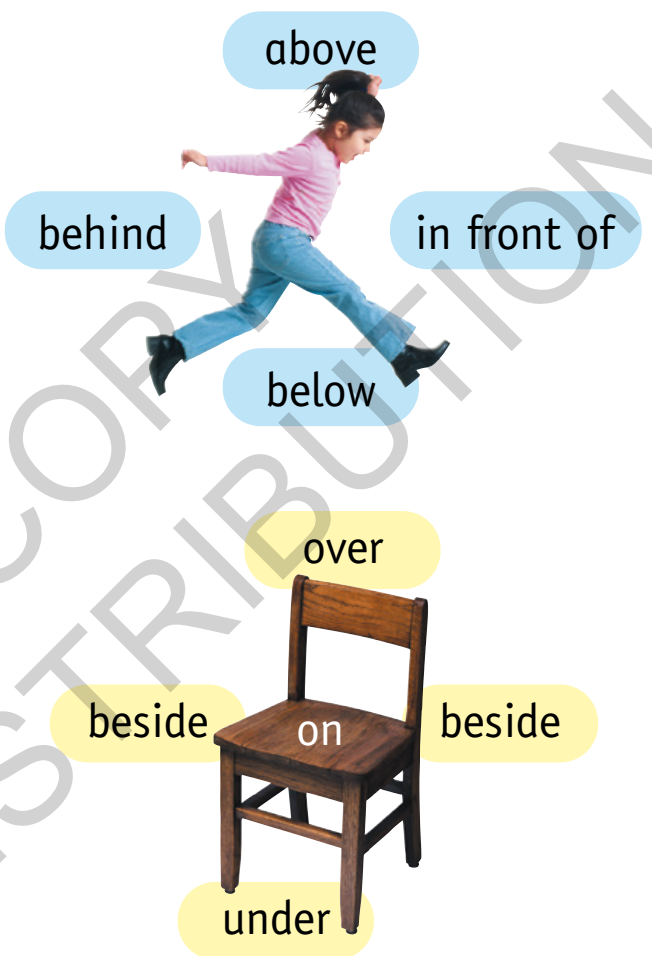
$$3 + 3 + 2 + 2 = 10 \text{ cm}$$



position

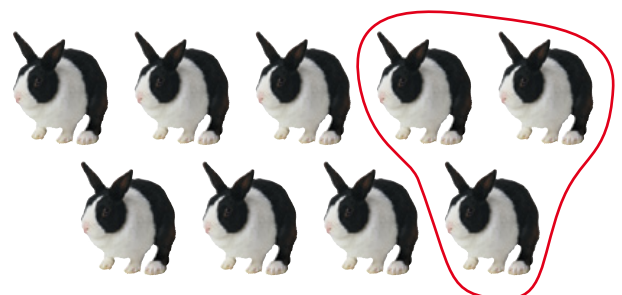


position



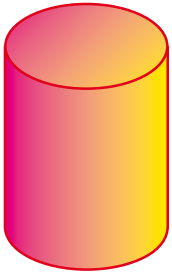
subtraction (-)

Nine rabbits take away three rabbits leaves six rabbits.

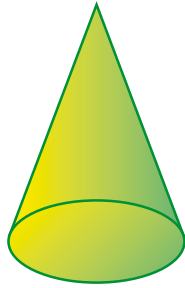


Dictionary

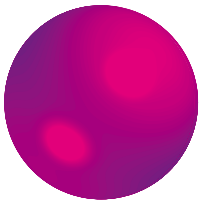
three-dimensional (3D) objects



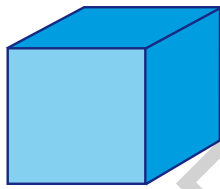
cylinder



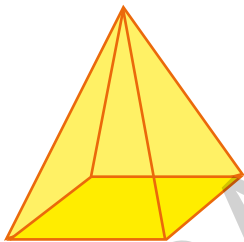
cone



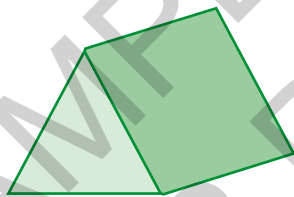
sphere



cube



square
pyramid



triangular
prism

time



analogue



digital

1 hour = 60 minutes

two-dimensional (2D) shapes

rectangle
tapawhā hāngai

square
tapawhā rite

circle
porowhita

oval
porotītaha

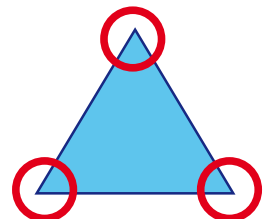
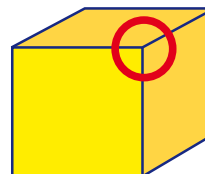
pentagon
taparima

hexagon
tapaono rite

triangle
tapatoru

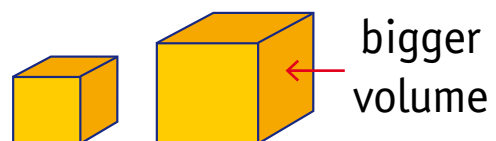
vertex

corner



volume

The amount of space a solid object takes up.



Measured in cubes.



How to solve a problem

Read • Plan • Work • Check

Read the problem carefully. Underline the question. Circle the facts.

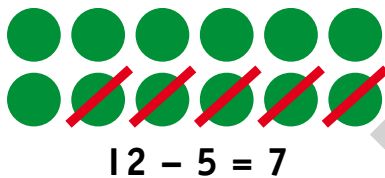
Plan what you will do: +, −, × (multiply) or ÷ (divide).

Work Write or draw a diagram to work it out. Write the answer.

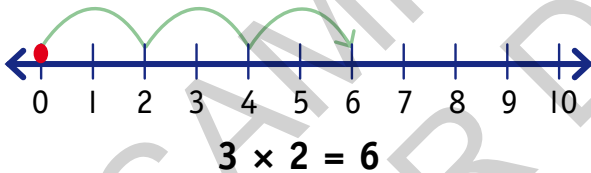
Check your answer! Make sure that your answer makes sense.

Draw a diagram

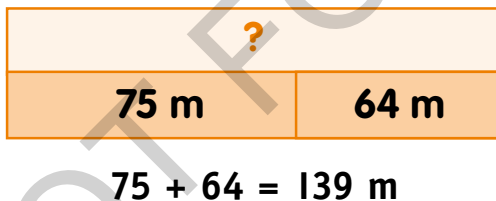
Draw a simple picture.
Use symbols if you can.



Draw a number line.
Jump along to calculate.



Draw a bar model.



Write an algorithm

Write the numbers into an algorithm
to calculate the problem.

$$\begin{array}{r} 97 - 72 = \quad 97 \\ - \quad 72 \\ \hline \end{array}$$

Use a table

Put the information from the problem in
columns. Can you see the pattern? The
information is clearer in a table.

Use this to work out the answer.

Jerry	5 mins	10 cakes	2 in 1 min.
Cam	4 mins	8 cakes	2 in 1 min.
Tilly	3 mins	9 cakes	3 in 1 min.

Who eats the fastest?

Answer: Tilly eats fastest.

Work backwards

Read the problem all the way through.
Find one piece of information. Write it
down. Find another piece of information
that relates and put them together. Write
it down. Keep working backwards until you
solve all the pieces of the problem.

*Kell has \$2 more than Greg, who has \$3
less than Dee. Dee has \$5. How much do
they each have?*

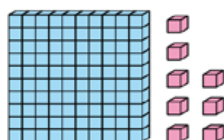
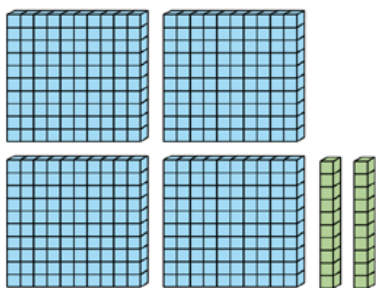
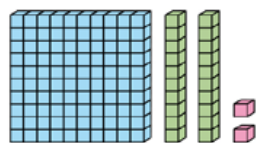
Dee = \$5

Greg = \$5 − \$3 = \$2

Kell = \$2 + \$2 = \$4



1 Match.



351

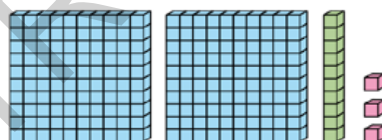
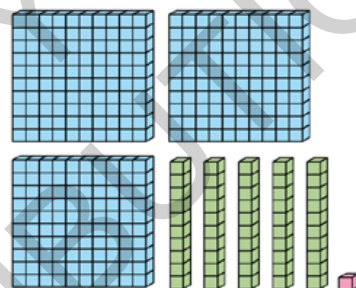
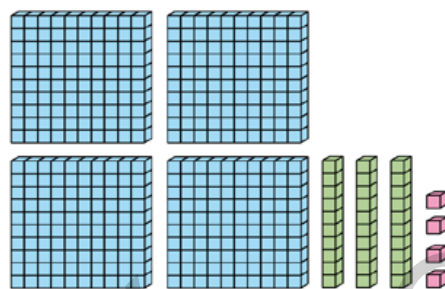
108

420

122

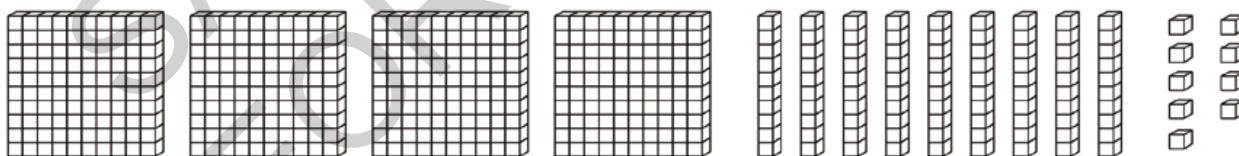
434

213

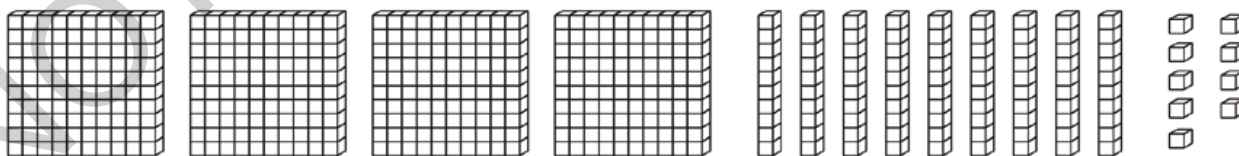


2 Colour to show the number.

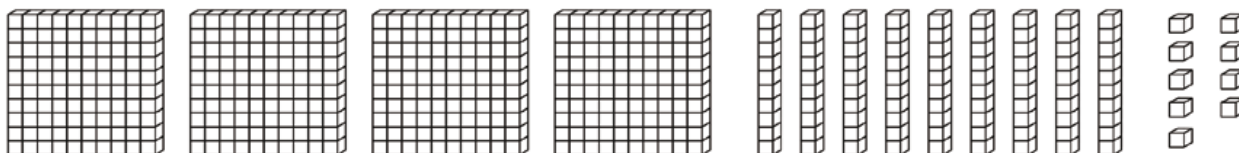
a 127



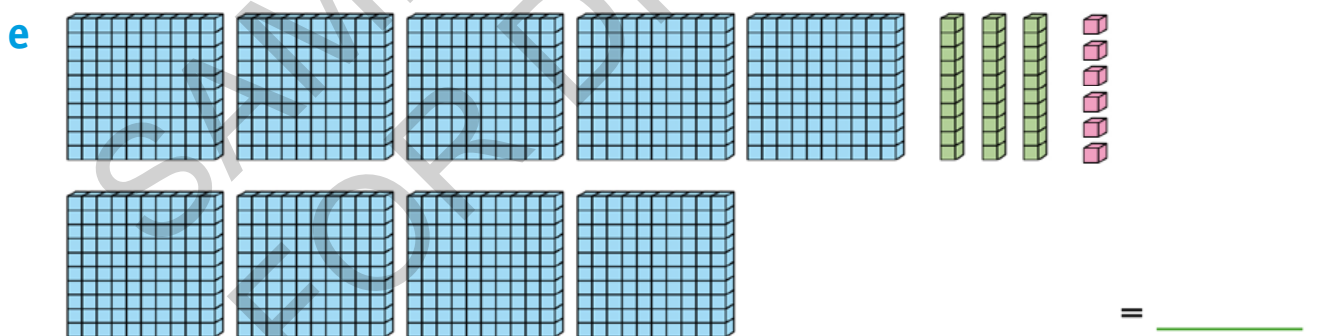
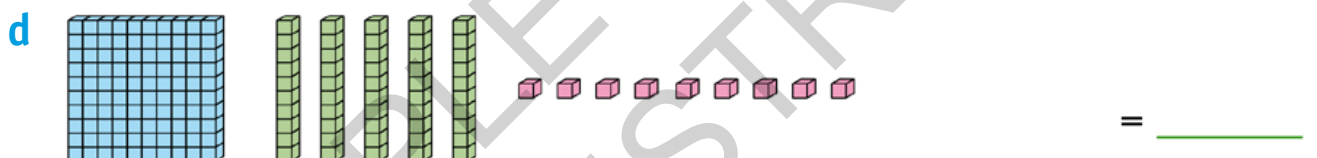
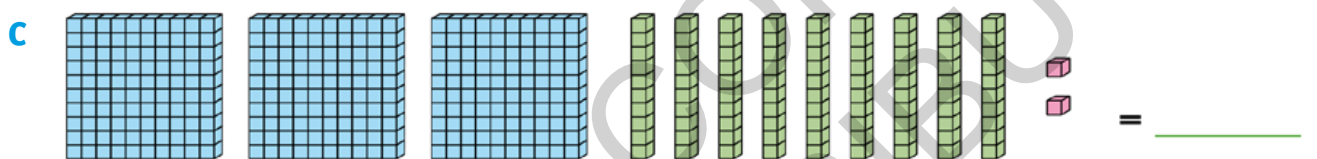
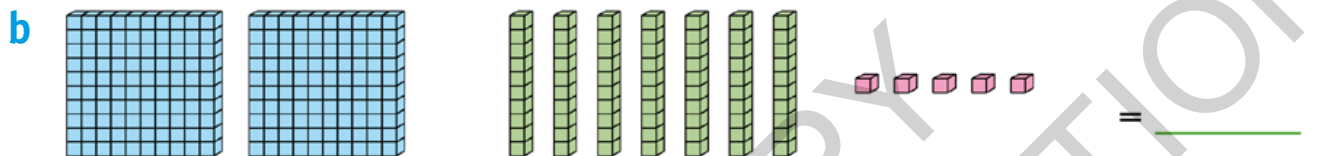
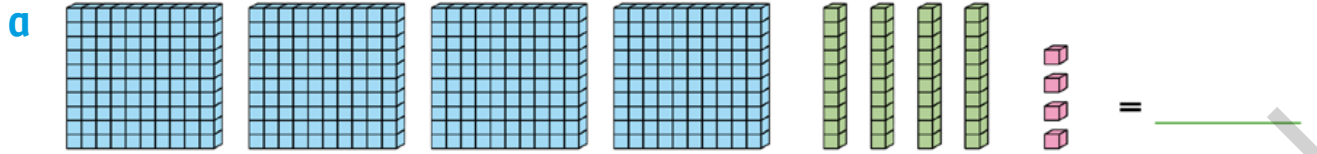
b 456



c 292



1 Write the number.



2 Write these numbers in words.

a 438 _____

b 176 _____

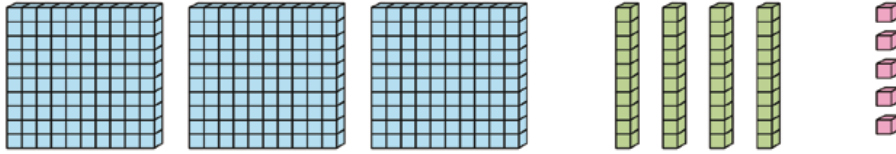
c 905 _____

d 280 _____

e 712 _____

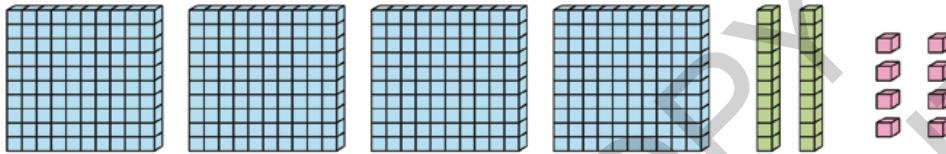
1 Complete.

a



_____ hundreds _____ tens _____ ones = _____

b



_____ hundreds _____ tens _____ ones = _____

2 Write the number in hundreds, tens and ones.

a

342

--	--	--

b

495

--	--	--

c

231

--	--	--

d

189

--	--	--

3 Complete: e.g. 549 = 5 hundreds, 4 tens and 9 ones

a 362 = _____ hundreds, _____ tens and _____ ones

b 791 = _____ hundreds, _____ tens and _____ ones

c _____ = 6 hundreds, 3 tens and 7 ones

d _____ = 8 hundreds and 4 tens

4 a 264 = 200 + 60 + _____

b 670 = _____ + 70 + 0

c 712 = _____ + 10 + _____

d 354 = _____ + _____ + 4

e 617 = 600 + _____ + _____

f 409 = _____ + _____ + 9

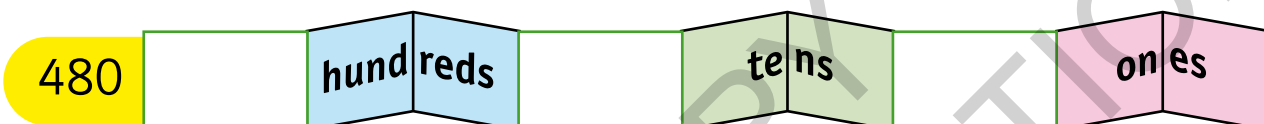
g 555 = _____ + _____ + _____

h 830 = _____ + 30 + _____

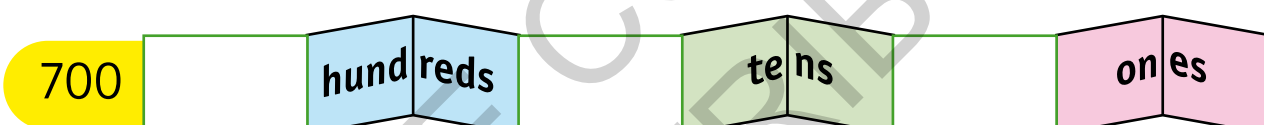
1 Complete.

a 245  hundreds tens ones

b 367  hundreds tens ones

c 480  hundreds tens ones

d 906  hundreds tens ones

e 700  hundreds tens ones

2 Complete.

- a 131 = 1 hundred, _____ tens and 1 one
- b 618 = _____ hundreds, 1 ten and _____ ones
- c 888 = _____ hundreds, _____ tens and _____ ones
- d 404 = _____ hundreds and _____ ones

3 Partition each number both ways.

- a 231 = _____ hundreds, _____ tens and _____ one
or _____ + _____ + _____
- b 585 = _____
or _____
- c 452 = _____
or _____

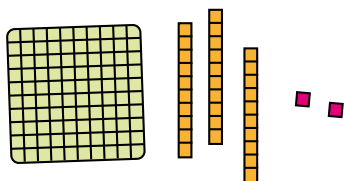


Comparing numbers

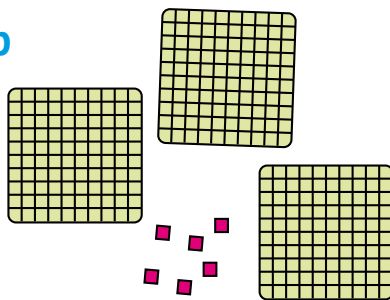
TERM 1
Week 1

1 How many?

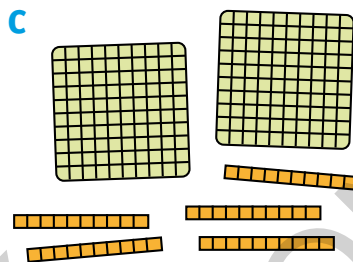
a



b



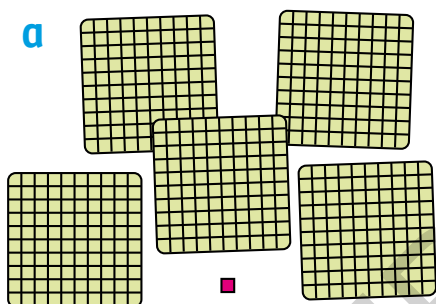
c



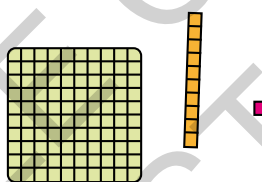
d Tick ✓ the largest number.

2

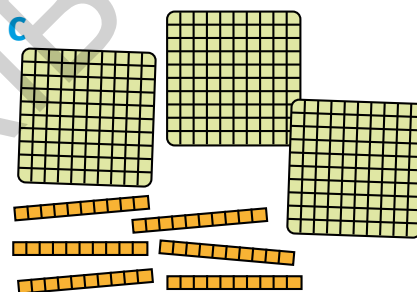
a



b

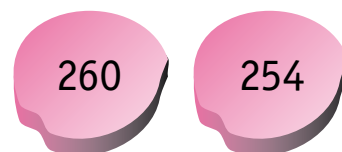
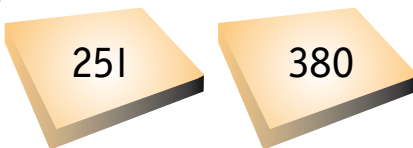


c

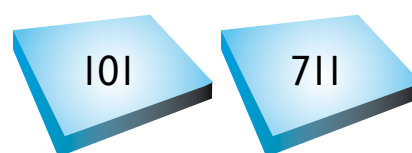
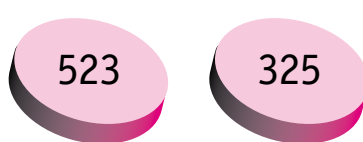
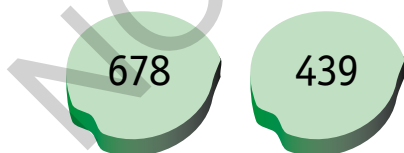


d Tick ✓ the smallest number.

3 a Circle the larger number.



b Circle the smaller number.



Mastery Checklist

- I can:
- ☐ identify 3-digit numbers made up of hundreds, tens and ones
 - ☐ read and write numbers to 1,000 in numerals and words
 - ☐ split numbers into place values in words and numbers

10	20	30	40	50	60	70	80	90	100
110	120	130	140	150	160	170	180	190	200
210	220	230	240	250	260	270	280	290	300
310	320	330	340	350	360	370	380	390	400
410	420	430	440	450	460	470	480	490	500
510	520	530	540	550	560	570	580	590	600
610	620	630		650	660	670	680	690	700
710	720				760	770	780	790	800
810	820	830		850	860	870	880	890	900
910	920	930	940	950	960	970	980	990	1,000

1 Write:

a the 5 missing numbers

b the numbers between 360 and 370 361, 362 ...

c 10 more than 160 _____ d 10 less than 700 _____

e 100 more than 180 _____ f 100 less than 910 _____

2 Count in 10s from 740 to 800 _____

3 Count in 100s from 440 to 840 _____

4 a Circle the numbers 10 more than 600, 770, 510, 850

b Circle the numbers 100 less than 600, 770, 510, 850

1 Complete.

a 196 197 198

b 405 406 407

c 770 769 768



2 Complete the table.

Number	1 more	10 more	100 more
a 57			
b 300			
c 690			
d 799			
e 205			

3 Write the number 10 less than:

a 70 b 330 c 500 d 405

4 a 340 $\xrightarrow{+10}$ $\xrightarrow{+10}$ $\xrightarrow{+10}$

b 572 $\xrightarrow{+10}$ $\xrightarrow{+10}$ $\xrightarrow{+10}$

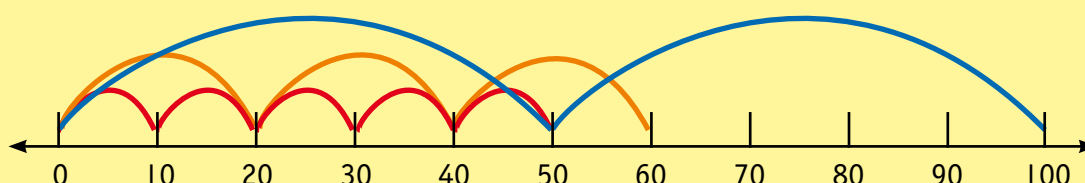
c 870 $\xrightarrow{-10}$ $\xrightarrow{-10}$ $\xrightarrow{-10}$

d 600 $\xrightarrow{-10}$ $\xrightarrow{-10}$ $\xrightarrow{-10}$

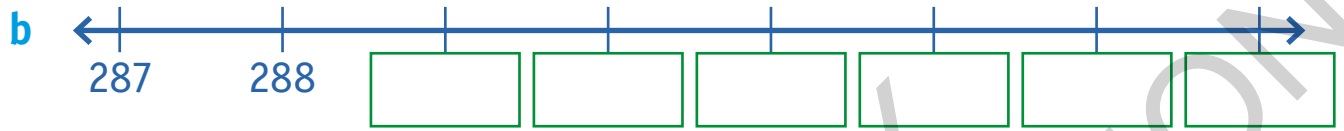
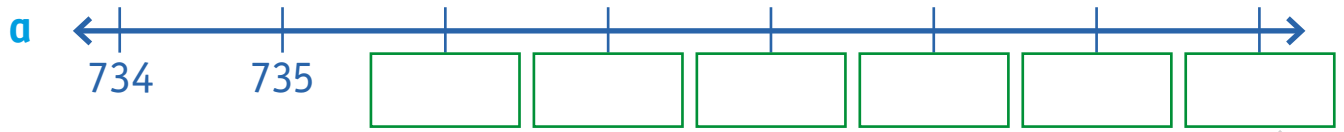


Challenge! Who will land on 850?

Flea jumps in tens, **Grasshopper** jumps in 20s, **Frog** jumps in 50s.



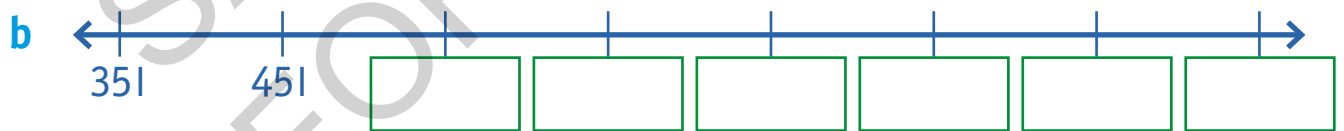
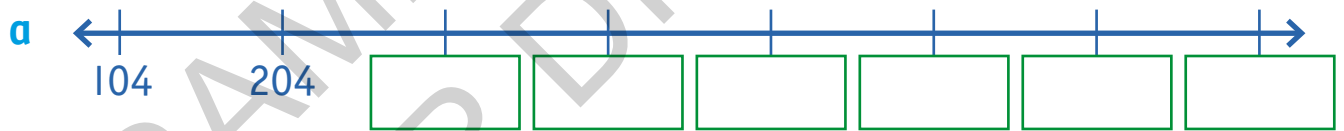
1 Count by 1s.



2 Count by 10s.



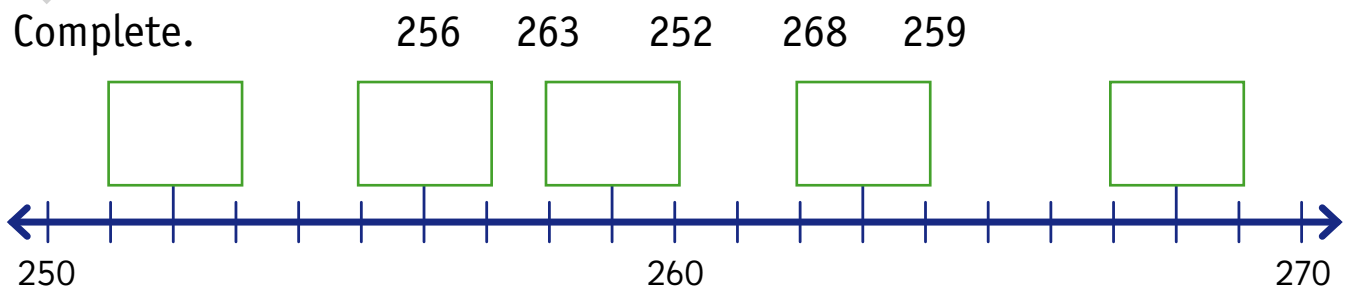
3 Count by 100s.



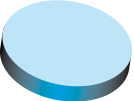
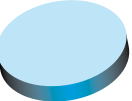
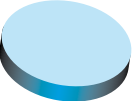
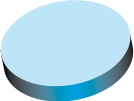
4 Fill in the missing numbers.



5 Complete.



1 Complete each counting pattern.

a 260 270 280     

b 770 670 570     

c 118 128 138     

d 475 465 455     

e 920 820 720     

2 Write each number.

- a three hundred and forty-two _____
- b seven hundred and ten _____
- c nine hundred and one _____
- d four hundred and fourteen _____



3 Write in words.

- a 509 _____
- b 213 _____

4 Underline the larger number. Write < or >.

- a 269 _____ 312 b 786 _____ 867 c 499 _____ 501
- d 301 _____ 199 e 614 _____ 641 f 221 _____ 212

Looking for patterns



Make different 3-digit numbers with these numbers. How many numbers can you make? How many are odd? How many are even? Repeat with 3 different numbers. Can you see a pattern?

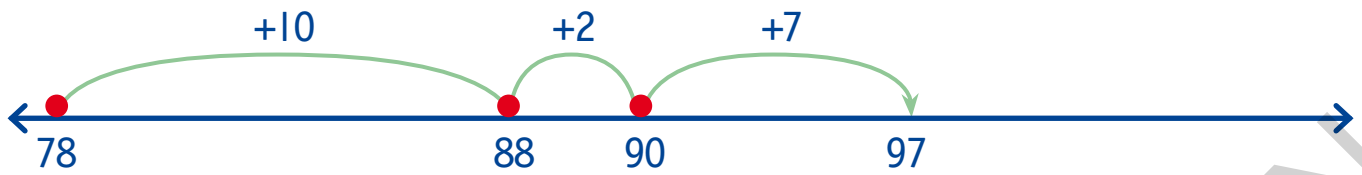
Mastery Checklist

- I can: ☐ count in 1s, 10s and 100s to 1,000
☐ find 1, 10 and 100 more or less
☐ read, write and compare 3-digit numbers

3 = 3

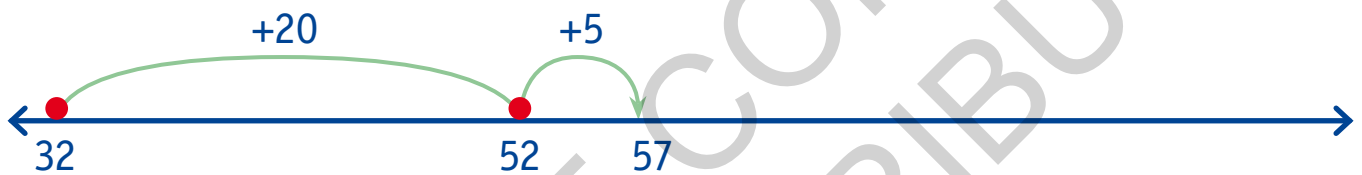
11

- 1 To add 19, add 10, then add 9.



$$78 + 19 = \boxed{}$$

- 2 To add 25, add 20, then add 5.



$$32 + 25 = \boxed{}$$

- 3 To add 36, add 30, then add 6.



$$64 + 36 = \boxed{}$$

4 $27 + 48 = \boxed{}$



5 $49 + 32 = \boxed{}$

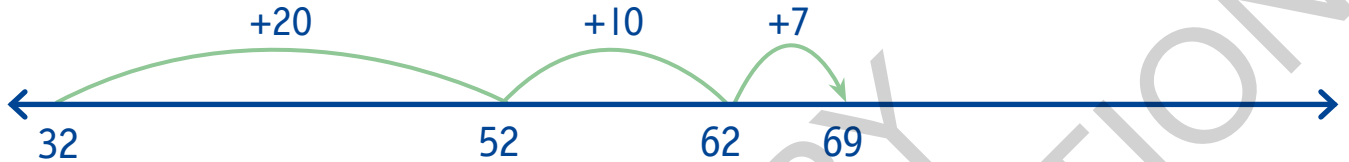


Adding many numbers

TERM 1
Week 3

Use the number lines to add. Start with the largest number.

1 $21 + 32 + 16 =$



2 $63 + 21 + 16 =$



3 $48 + 33 + 12 =$



4 $15 + 9 + 75 =$



5 $31 + 35 + 17 + 11 =$

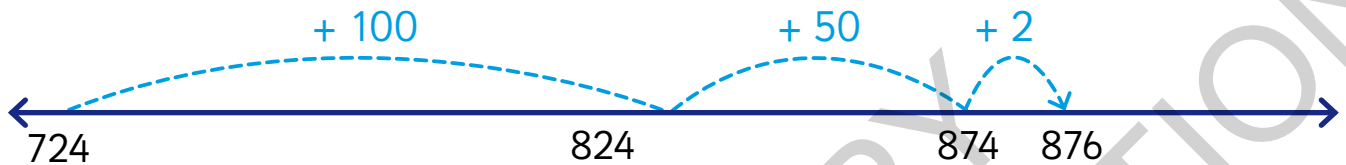


Add on a number line

TERM 1
Week 3

Use the empty number lines to add. Jump by hundreds, then tens, then ones.

1 $724 + 152 =$



2 $642 + 345 =$



3 $422 + 263 =$



4 $512 + 436 =$



5 $427 + 301 =$

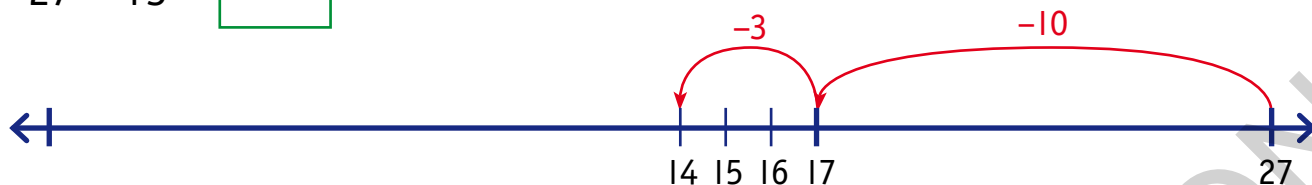


Split to subtract

TERM 1
Week 3

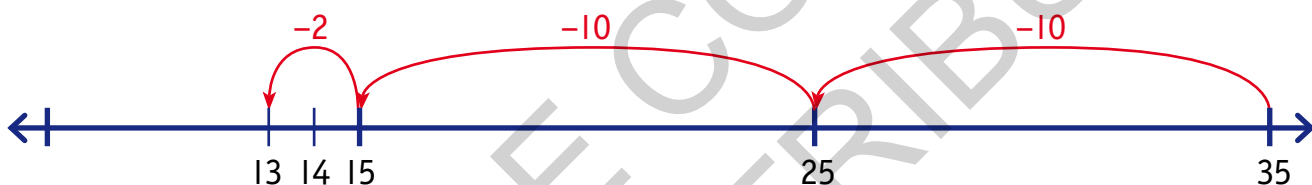
To subtract 13, take away 10, then take away 3.

1 $27 - 13 = \square$



To subtract 22, take away 20, then take away 2.

2 $35 - 22 = \square$



3 $48 - 15 = \square$



4 $54 - 16 = \square$



5 $62 - 25 = \square$

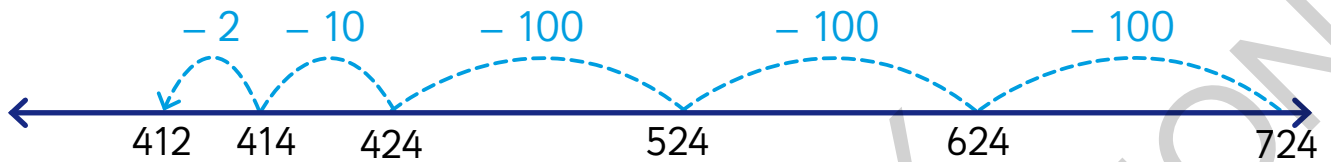


Subtract on a number line

TERM 1
Week 3

Use the number lines. Jump back hundreds, then tens, then ones.

1 $742 - 312 =$



2 $692 - 470 =$



3 $529 - 118 =$



4 $873 - 551 =$



5 $457 - 305 =$



Mastery Checklist

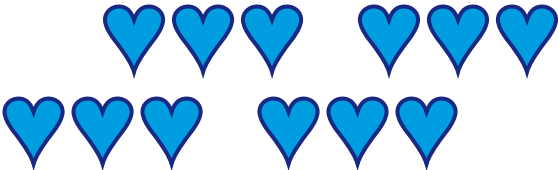
- I can: ☐ split by place value to add and subtract on a number line
☐ add and subtract 2-digit and 3-digit numbers on number lines

Repeated addition

TERM 1
Week 4

1 Find the answer.

a

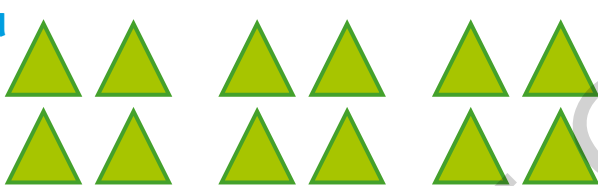

$$3 + 3 + 3 + 3 = \underline{\hspace{2cm}}$$

b

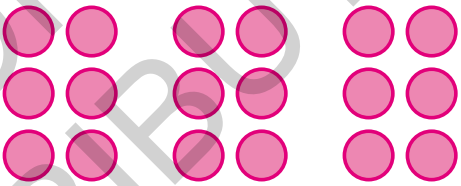

$$5 + 5 + 5 = \underline{\hspace{2cm}}$$

2 Write the repeated addition sum. Find the answer.

a


$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{2cm}}$$

b

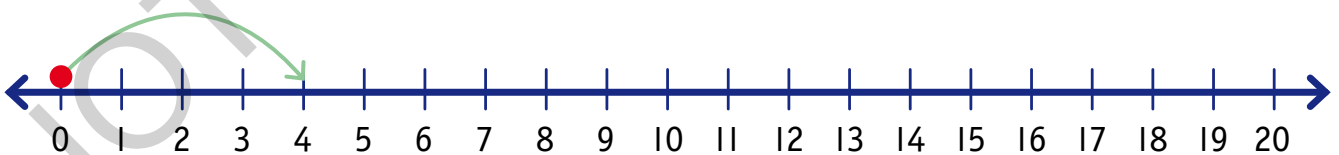

$$\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{2cm}}$$

3 Draw the jumps. Find the answer.

a $3 + 3 + 3 + 3 = \underline{\hspace{2cm}}$



b $4 + 4 + 4 + 4 = \underline{\hspace{2cm}}$



c $6 + 6 + 6 = \underline{\hspace{2cm}}$



Multiplication

× is the
sign that tells
us to multiply

TERM 1
Week 4

1 Double 2.



$$2 \times \square = \square$$

2 Double 3.



$$2 \times \square = \square$$

3 How many corners?



$$1 \times \square = \square$$

4 How many corners?



$$3 \times \square = \square$$

5 How many fingers?



$$3 \times \square = \square$$

6 How many fingers?



$$4 \times \square = \square$$

7 Count by 10s.



$$4 \times \square = \square$$

8 Count by 10s.



$$5 \times \square = \square$$

- 1 Use multiplication to find the answer.

Waldo ate two apples every day for two weeks. How many apples did he eat in total? _____



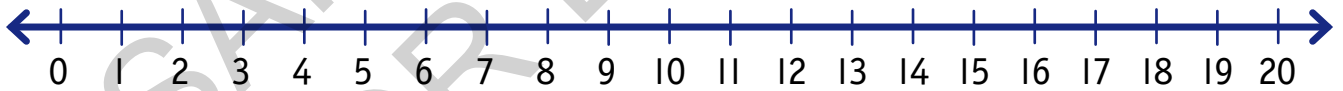
- 2 Ruby has six dogs. They each have five puppies. How many puppies altogether? _____



- 3 Dizzy bought nine packets of marbles. There were ten marbles in each pack. How many marbles in total? _____



- 4 Skip count along the number line to find the answers.



Mango made three paper flowers each day for six days. How many flowers altogether? _____

Doc writes five letters every week. After four weeks, how many letters has he written in total? _____

Mango has eight pairs of gloves. How many gloves does she have altogether? _____

Waldo has 6 boxes with 3 hats in each box. How many hats does Waldo have? _____

Use the numbers from the problem to fill in the equation.

- 1 Ruby has two bookshelves.
She has five books on each shelf.
How many books does she have?

$$\square \times \square = \square$$

- 2 Doc bought five packs of bouncy balls.
Each packet had three balls in it.
How many bouncy balls did he buy?

$$\square \times \square = \square$$

- 3 Mango has three animal puzzles.
Each puzzle has ten pieces.
How many puzzle pieces altogether?

$$\square \times \square = \square$$

- 4 Write an equation and find the answer.

- a Ruby walks four dogs.
They each have four legs.
How many legs in total?

- b Dizzy made enough finger
puppets to cover all the
fingers on five hands. How
many puppets did he make?

- c Waldo has five toy cars.
Each car has 4 tyres.
How many tyres in total?

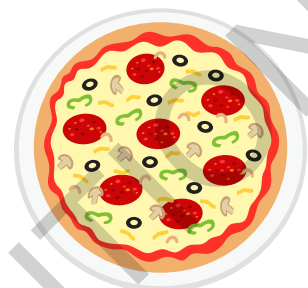


- Mastery Checklist** I can: ☐ use repeated addition to answer multiplications
☐ write multiplication equations
☐ multiply using groups and arrays and a number line
☐ skip count to multiply
☐ solve multiplication word problems

Multiplication Problems

Draw a diagram and write an equation to find the answer.

- 1 Deb has 3 pizzas. She cuts them into 5 slices each.
How many slices of pizza are there?



slices

- 2 Meg has 2 handbags, 3 backpacks and a school bag.
She has 2 pens in each bag. How many pens is that in total?



=

- 3 On days that start with S, Mandy read 2 whole books.
How many books does she read in two weeks?



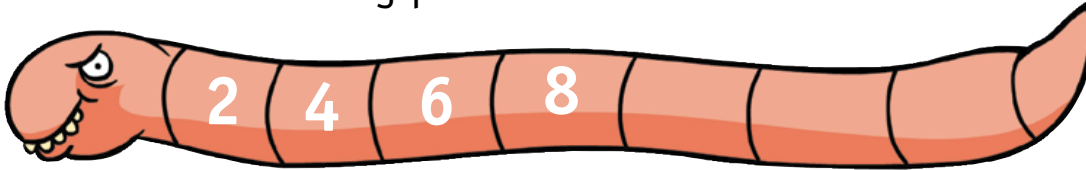
=

I can solve a problem by:

☐ writing a multiplication equation ☐ drawing a diagram

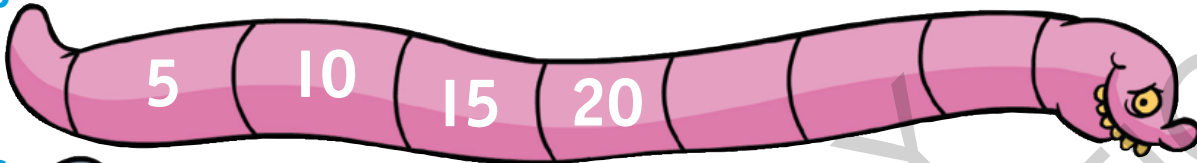
I Continue each counting pattern. Write a + or – rule in the box.

a

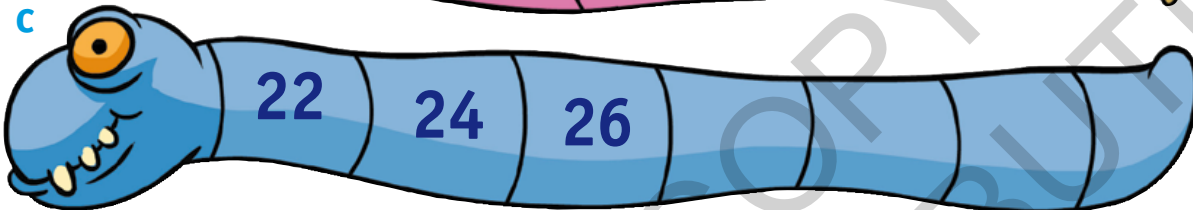


+2

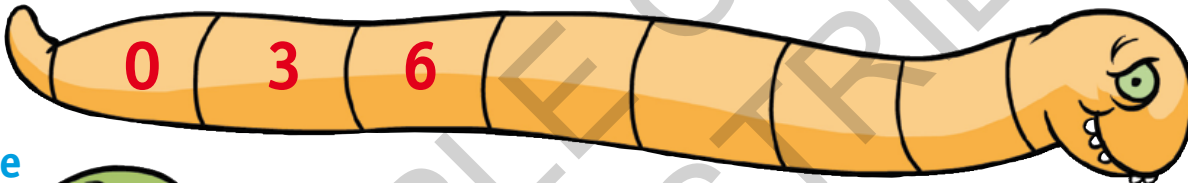
b



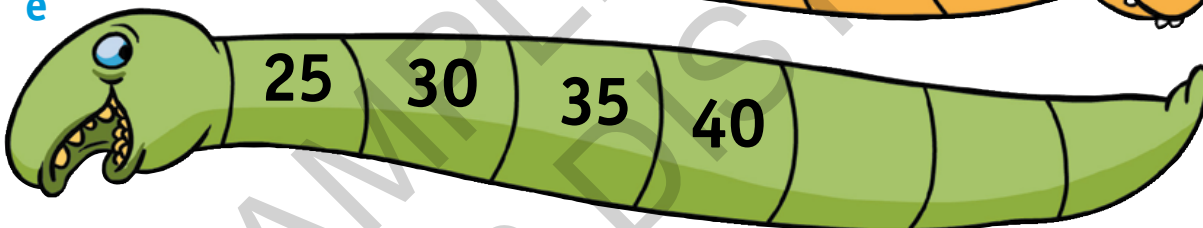
c



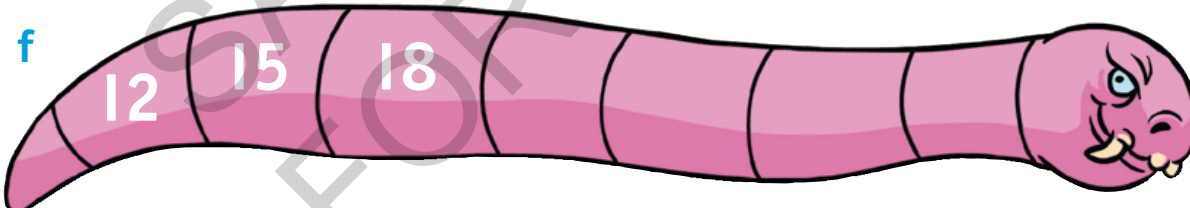
d



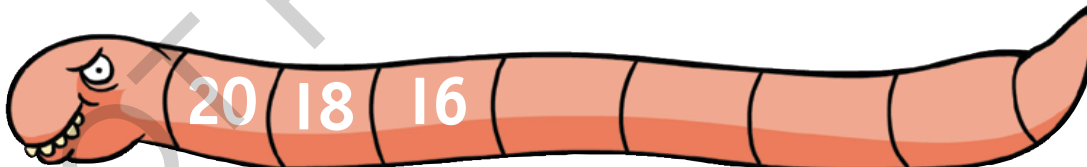
e



f



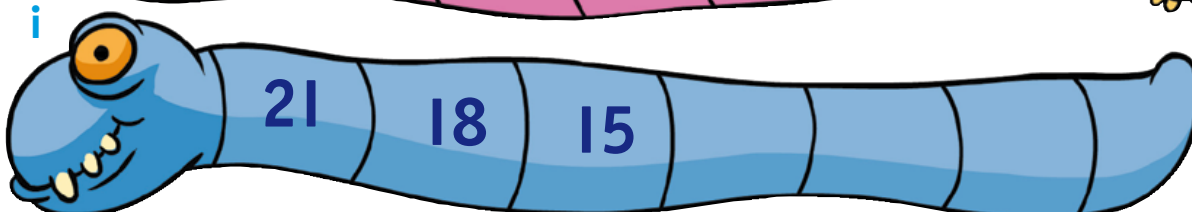
g



h



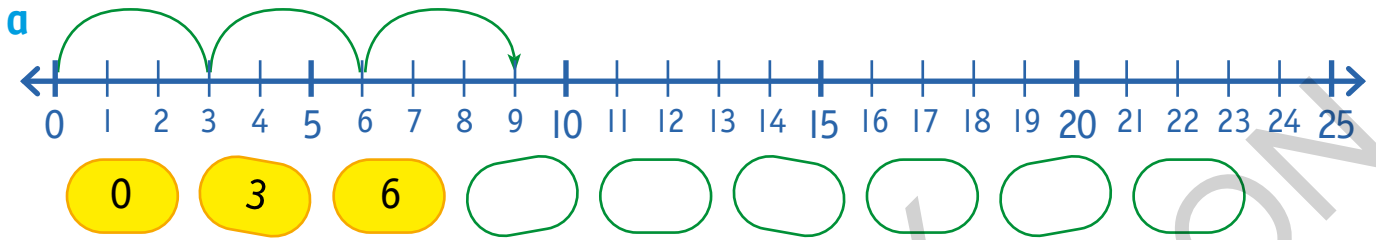
i



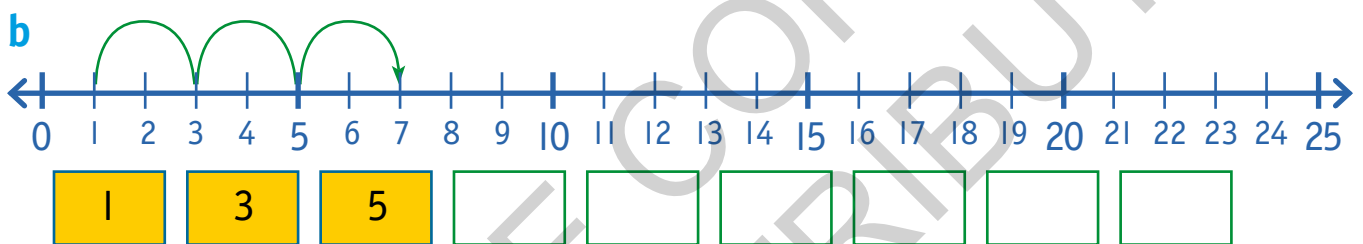
Patterns on the number line

TERM 1
Week 5

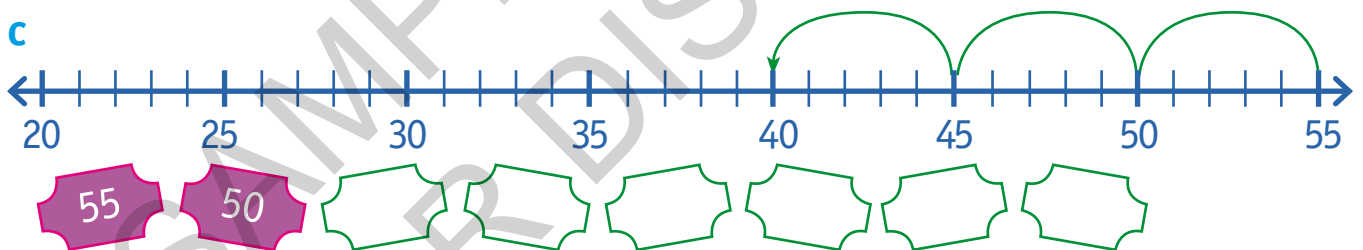
- I Make equal jumps along the number line.
Write the numbers you land on.



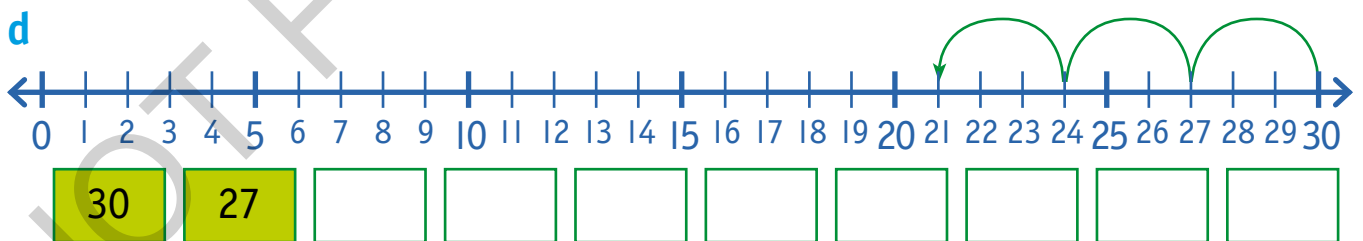
The rule is _____.



The rule is _____.



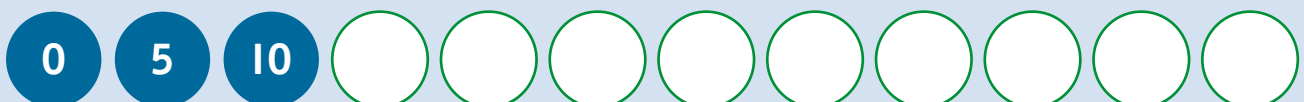
The rule is _____.



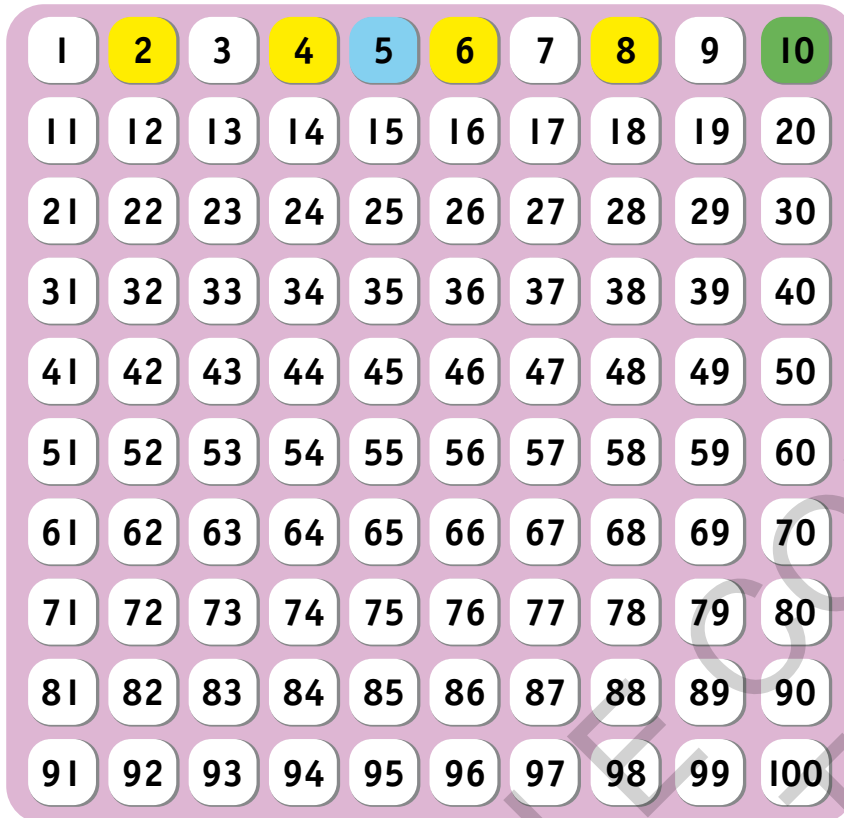
The rule is _____.

Looking for patterns

Keep counting by 5.



When I count in fives from zero, the numbers end in or .



1 Colour:

- a the **counting by 2s** pattern yellow.
- b the **counting by 5s** pattern blue.

2 What is the pattern of green numbers where yellow and blue come together?

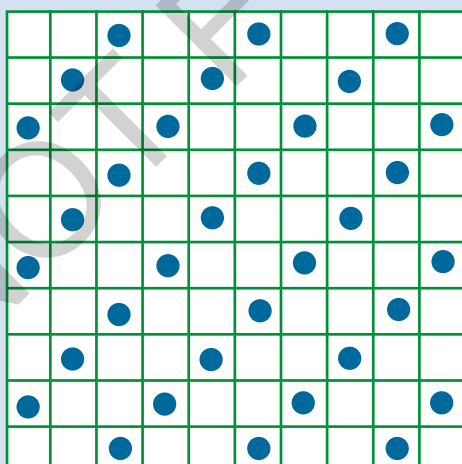
Counting by

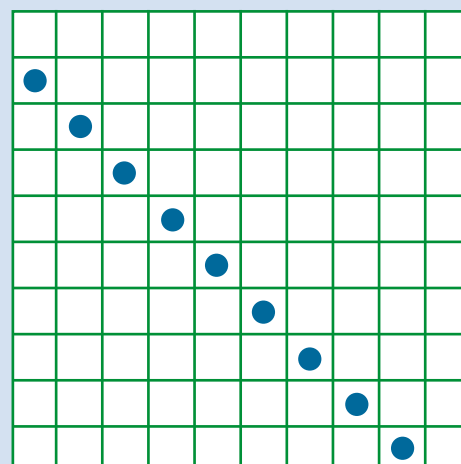
3 Write the counting by 10s pattern.

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Looking for patterns

What number patterns are shown?





1 What are the next three numbers?

a

b

c

d

2 What is the rule?

a 26, 36, 46, 56 + _____

b 131, 151, 171, 191 + _____

c 159, 359, 559, 759 + _____

d 290, 270, 250, 230 - _____

e 654, 554, 454, 354 - _____

f 905, 705, 505, 305 - _____

3 Write the next 3 numbers.

a _____, _____, _____

b _____, _____, _____

c _____, _____, _____

d _____, _____, _____

e _____, _____, _____

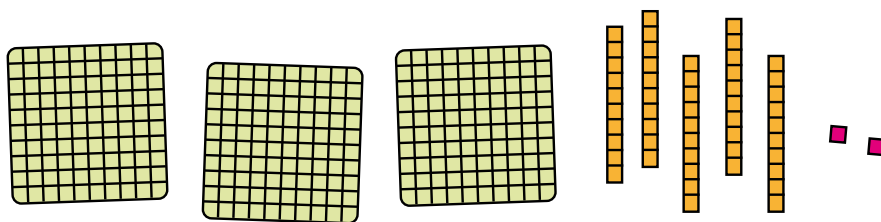
f _____, _____, _____

Mastery Checklist

- I can:
- ☐ identify $\pm$ 2, 3, 5, 10, 11 rules for number patterns
 - ☐ continue number patterns increasing or decreasing by 2, 3 or 5
 - ☐ identify $\pm$ tens/hundreds rules for number patterns
 - ☐ continue number patterns increasing or decreasing by tens/hundreds

Checkpoint 1

1



Shade one bubble.



This number is:

532

☐

253

☐

352

☐

523

☐

2 Complete:

Write the answers.

a $753 =$ _____ hundreds, _____ tens and _____ ones

b _____ = 2 hundreds, 8 tens and 4 ones

c $169 =$ _____ + _____ + _____

d _____ = $300 + 20 + 1$

Shade one bubble.



3 Which number is the smallest?

235

☐

523

☐

325

☐

253

☐

4 Continue.

Write the answers.

a

15

25

35

b

335

435

535

Shade one bubble.



5 769, 770, 771, _____, _____, 774, 775, 776

The missing numbers are:

771, 772

☐

773, 774

☐

770, 772

☐

772, 773

☐

Checkpoint 1

Write the answers.

- 6 Write the equation. Use the number line to find the answer.
Pam has 134 fish and 217 birds. How many pets altogether?



a $\square + \square = \square$

b



- 7 Write the equation. Use the number line to find the answer.
Sam has 367 beetles. He sells 173 of them. How many are left?

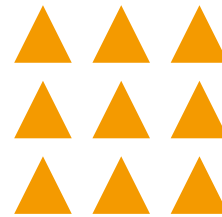
a $\square - \square = \square$

b



8 a $\square + \square + \square = \square$

b $\square \times \square = \square$



- 9 Write the equation. Use the number line to find the answer.
Bob has 4 cars and each car has 4 wheels.
How many wheels altogether?



a $\square \times \square = \square$

b



- 10 What is the next number in this pattern?

30, 27, 24, 21, 18, $\square$

17



16



15



12



Shade one bubble.



I Use the number chart to add the tens, then the ones.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



a $22 + 11 =$

b $37 + 13 =$

c $64 + 15 =$

d $51 + 42 =$

e $72 + 19 =$

f $89 + 9 =$

g $68 + 23 =$

h $49 + 22 =$

i $37 + 35 =$

j $33 + 28 =$

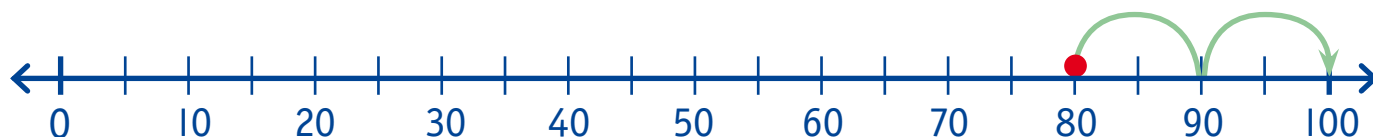
k $84 + 12 =$

l $45 + 48 =$

m $56 + 27 =$

n $77 + 8 =$

o $63 + 17 =$



1 True or false? Write T or F.

a $80 + 20 = 100$ _____ b $60 + 30 = 100$ _____ c $90 + 10 = 100$ _____

d $50 + 40 = 100$ _____ e $70 + 40 = 100$ _____ f $100 + 0 = 100$ _____

2 Complete these equations.

a $70 + \underline{\hspace{2cm}} = 100$ b $60 + \underline{\hspace{2cm}} = 100$ c $50 + \underline{\hspace{2cm}} = 100$



3 Complete these equations.

a $85 + \underline{\hspace{2cm}} = 100$ b $91 + \underline{\hspace{2cm}} = 100$ c $89 + \underline{\hspace{2cm}} = 100$

4 How many more to make 100? Draw them.

Tens	Ones

Tens	Ones

Tens	Ones

a $56 + \underline{\hspace{2cm}} = 100$ b $47 + \underline{\hspace{2cm}} = 100$ c $32 + \underline{\hspace{2cm}} = 100$

5 Complete.

a $17 + \underline{\hspace{2cm}} = 100$ b $29 + \underline{\hspace{2cm}} = 100$ c $34 + \underline{\hspace{2cm}} = 100$

d $48 + \underline{\hspace{2cm}} = 100$ e $56 + \underline{\hspace{2cm}} = 100$ f $63 + \underline{\hspace{2cm}} = 100$

Adding 10 and 100

Think about place value
When you add **10**
the **tens** digit changes.
When you add **100**
the **hundreds** digit changes.

TERM 1
Week 6

1 Match sums to answers.

$123 + 100 =$

$312 + 10 =$

$123 + 10 =$

$321 + 100 =$

$231 + 10 =$

$312 + 100 =$

$231 + 100 =$

421

331

223

412

133

322

241

2 Write the missing numbers.

a $683 + 10 =$

b $740 +$ $= 840$

c $+ 100 = 345$

d $451 +$ $= 551$

e $+ 10 = 724$

f $815 + 100 =$

g $+ 10 = 452$

h $94 +$ $= 294$

3 a Dizzy collected 501 shells. Then he found 10 more.

How many shells does he have now? _____

b Waldo picked 174 apples. Mango picked 100 apples.

How many apples altogether? _____

c Doc bought 250 cm of ribbon. Ruby gave him another 100 cm.

How much ribbon in total? _____



Adding using place value

TERM 1
Week 6

1 Add using place value.

a $245 + 2 =$

b $318 + 5 =$

c $472 + 6 =$

$245 + 20 =$

$318 + 50 =$

$472 + 60 =$

$245 + 200 =$

$318 + 500 =$

$472 + 600 =$

2 Use known facts.

a $6 + 4 =$

b $8 + 5 =$

c $9 + 3 =$

$60 + 40 =$

$80 + 50 =$

$90 + 30 =$

$600 + 400 =$

$800 + 500 =$

$900 + 300 =$

3 Some of these are tricky.

a $1 + 9 =$

b $356 + 5 =$

c $482 + 2 =$

$10 + 90 =$

$356 + 50 =$

$482 + 20 =$

$110 + 900 =$

$356 + 500 =$

$482 + 200 =$

4 Write the missing numbers.

a $428 +$ $= 438$

b $428 +$ $= 628$

c $705 +$ $= 715$

5 Solve the problems.

- a A library has 326 books.
The school buys 200 more books.
How many books are there now?

- b Mia has 415 stickers. Her friend
gives her 30 more. How many
stickers does Mia have now?

Adding within 1,000

TERM 1
Week 6

Draw blocks to show the sum, then find the total.

1 $253 + 135 = \underline{\hspace{2cm}}$

Hundreds	Tens	Ones

+

2 $416 + 241 = \underline{\hspace{2cm}}$

Hundreds	Tens	Ones

+

3 $352 + 314 = \underline{\hspace{2cm}}$

Hundreds	Tens	Ones

+

Mastery Checklist

- I can: ☐ partition 2-digit and 3-digit numbers to add within place values
☐ find the number that is added to make 100
☐ mentally add 10 or 100 to 3-digit numbers

Partitioning to subtract

TERM 1
Week 7

1 Complete.

a

$$28 - 16 = \square$$

tens	ones
1	6

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30

Start at 28. Jump back 10. Jump back 6.

Colour the answer.

b

$$79 - 24 = \square$$

tens	ones
2	4

51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80

Start at 79. Jump back 20. Jump back 4.

Colour the answer.

2 Complete each sum.

71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

a $100 - 13 = \square$

b $94 - 22 = \square$

c $90 - 16 = \square$

d $87 - 15 = \square$

Subtraction problems

TERM 1
Week 7

Show your working. Write the answer in the box.

- 1 There are 287 seeds and 51 have been planted.
How many are left to plant?



- 2 I have 168 books and I give away 45 for the book sale.
How many books do I have left?

- 3 Ruby has 55 shopping bags. She lends 34 bags to Mango.
How many left?



- 4 There are 99 children at the pool and 79 go home.
How many are left?

1 Match sums to answers.

$123 - 100 =$

$312 - 10 =$

$123 - 10 =$

$321 - 100 =$

$231 - 10 =$

$312 - 100 =$

$231 - 100 =$

221

131

113

302

23

221

212

2 Write the missing numbers.

a $683 - 10 = \square$

b $940 - \square = 840$

c $\square - 100 = 345$

d $571 - \square = 561$

e $\square - 10 = 724$

f $815 - 100 = \square$

g $\square - 10 = 452$

h $294 - \square = 94$

3 a Dizzy collected 501 shells. Then he lost 10.

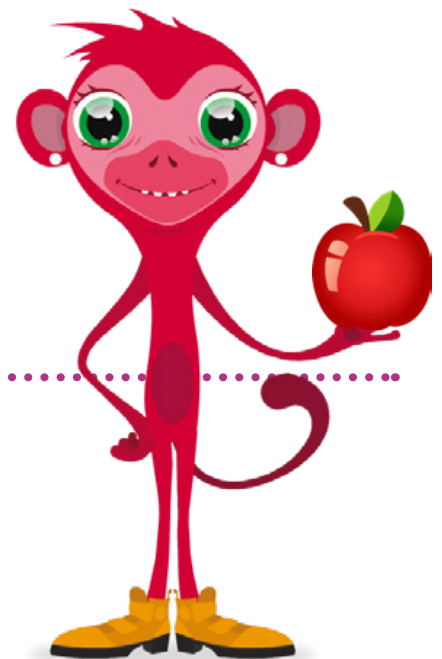
How many shells does he have now? _____

b Waldo picked 174 apples. Mango ate 10 apples.

How many apples now? _____

c Doc bought 250 cm of ribbon. He gave Ruby 100 cm.

How much ribbon is left? _____



Subtract within 1,000

TERM 1
Week 7

Draw blocks. Cross out to take away. Write the answer.

1 $574 - 351 = \underline{\quad}$

Hundreds	Tens	Ones

2 $748 - 316 = \underline{\quad}$

Hundreds	Tens	Ones

3 $631 - 510 = \underline{\quad}$

Hundreds	Tens	Ones

4 $828 - 703 = \underline{\quad}$

Hundreds	Tens	Ones

Subtract by place value

TERM 1
Week 7

1 Complete.

a $564 - 4 = \square$

b $731 - 1 = \square$

c $856 - 6 = \square$

$564 - 40 = \square$

$731 - 10 = \square$

$856 - 60 = \square$

$564 - 400 = \square$

$731 - 100 = \square$

$856 - 600 = \square$

2 Use known facts.

a $7 - 2 = \square$

b $8 - 5 = \square$

c $9 - 3 = \square$

$70 - 20 = \square$

$80 - 50 = \square$

$90 - 30 = \square$

$700 - 200 = \square$

$800 - 500 = \square$

$900 - 300 = \square$

3 Write the missing numbers.

a $563 - \square = 553$

b $563 - \square = 463$

c $742 - \square = 702$

4 a A library has 625 books.

The school gives away 200 books.

How many books are left? _____

b A farmer has 483 sheep.

He sells 30 sheep. How many

sheep remain? _____

Challenge Find the answers. Use the letters to solve the riddle.

R: $72 - \square = 32$

T: $968 - \square = 938$

E: $573 - \square = 373$

L: $685 - \square = 285$

H: $478 - \square = 178$

M: $859 - \square = 839$

What comes once in a minute, twice in a moment, but never in a thousand years?

30

300

200

400

200

30

30

200

40

20

Mastery Checklist

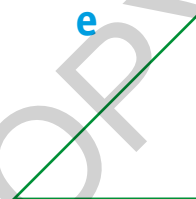
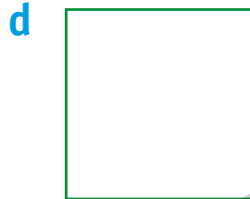
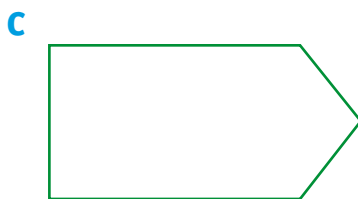
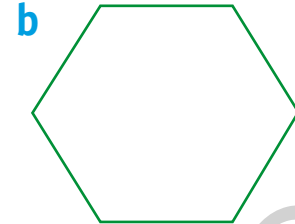
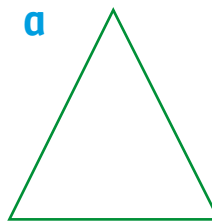
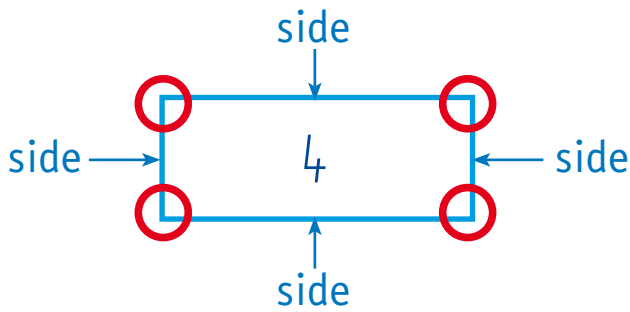
I can: ☐ partition 2-digit and 3-digit numbers to subtract within place values
☐ add and subtract 10 or 100 from 3-digit numbers

Sides and vertices

A **vertex** is where 2 straight lines meet.

TERM 1
Week 8

1 How many sides has each shape?



2 Circle the vertices.

3

	Number of sides	Number of vertices
a  triangle		
b  square		
c  rectangle		
d  pentagon		
e  hexagon		

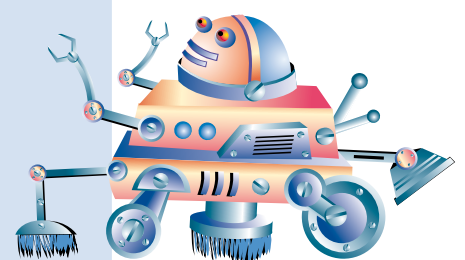
Looking for patterns

A shape with 3 straight sides has vertices.

A shape with 4 straight sides has vertices.

A shape with 5 straight sides has vertices.

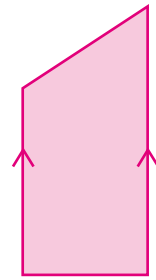
A shape with 6 straight sides has vertices.



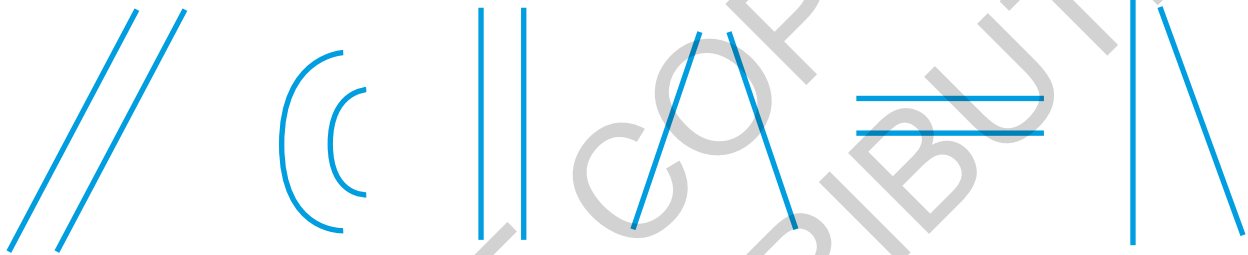
Parallel lines are always the same distance apart and never meet.

Trapeziums have:

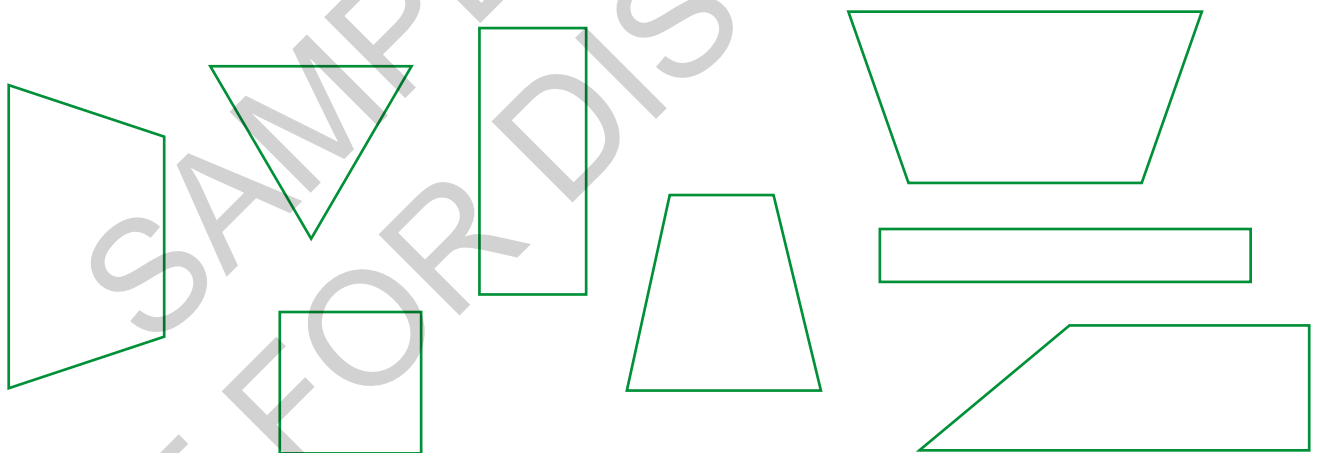
- 4 straight sides
- 2 sides that are parallel
- 2 sides that are not parallel.



1 Circle the parallel lines.



2 Tick shapes with parallel lines. Colour the trapeziums.



3 Draw 2 different trapeziums.



- A rhombus has:**
- 4 straight sides all the same length
 - 2 pairs of parallel sides.

rhombus

- 1 Draw a rhombus. Draw a square.



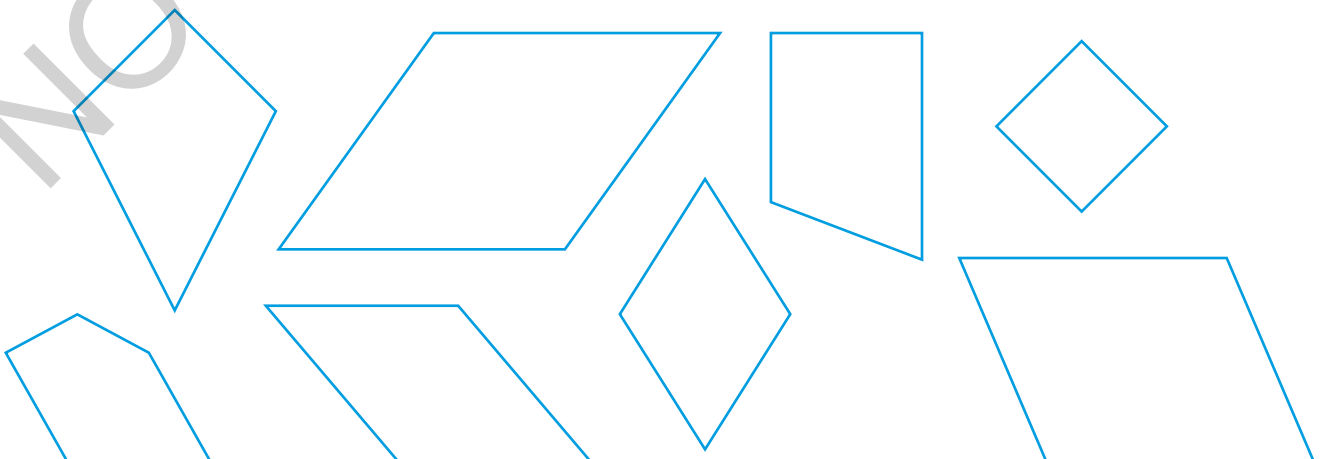
- 2 Tick or cross.

	Rhombus	Square
4 straight sides		
all sides the same length		
2 pairs of parallel sides		

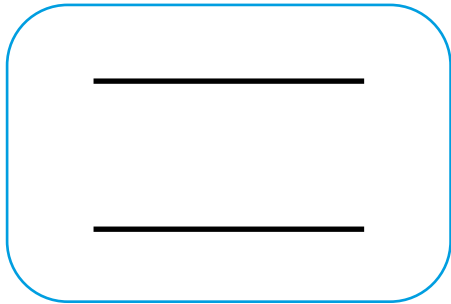


- 3 What does a square have that a rhombus doesn't? Hint: Look at the vertices.

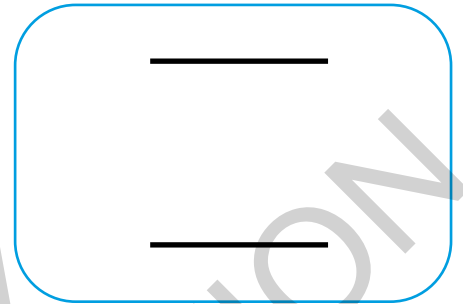
- 4 Colour each rhombus.



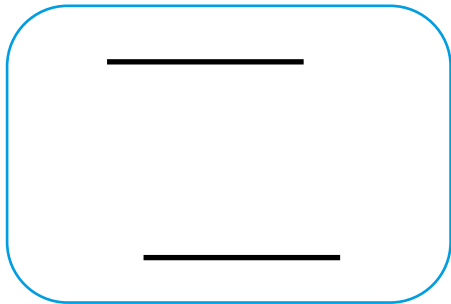
1 Turn these parallel lines into different quadrilaterals. Match.



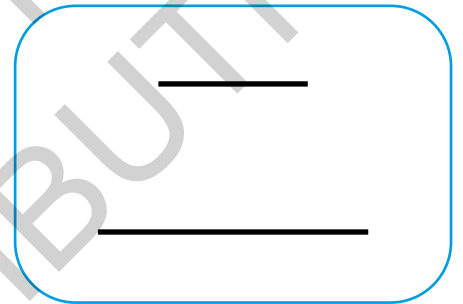
trapezium



rectangle

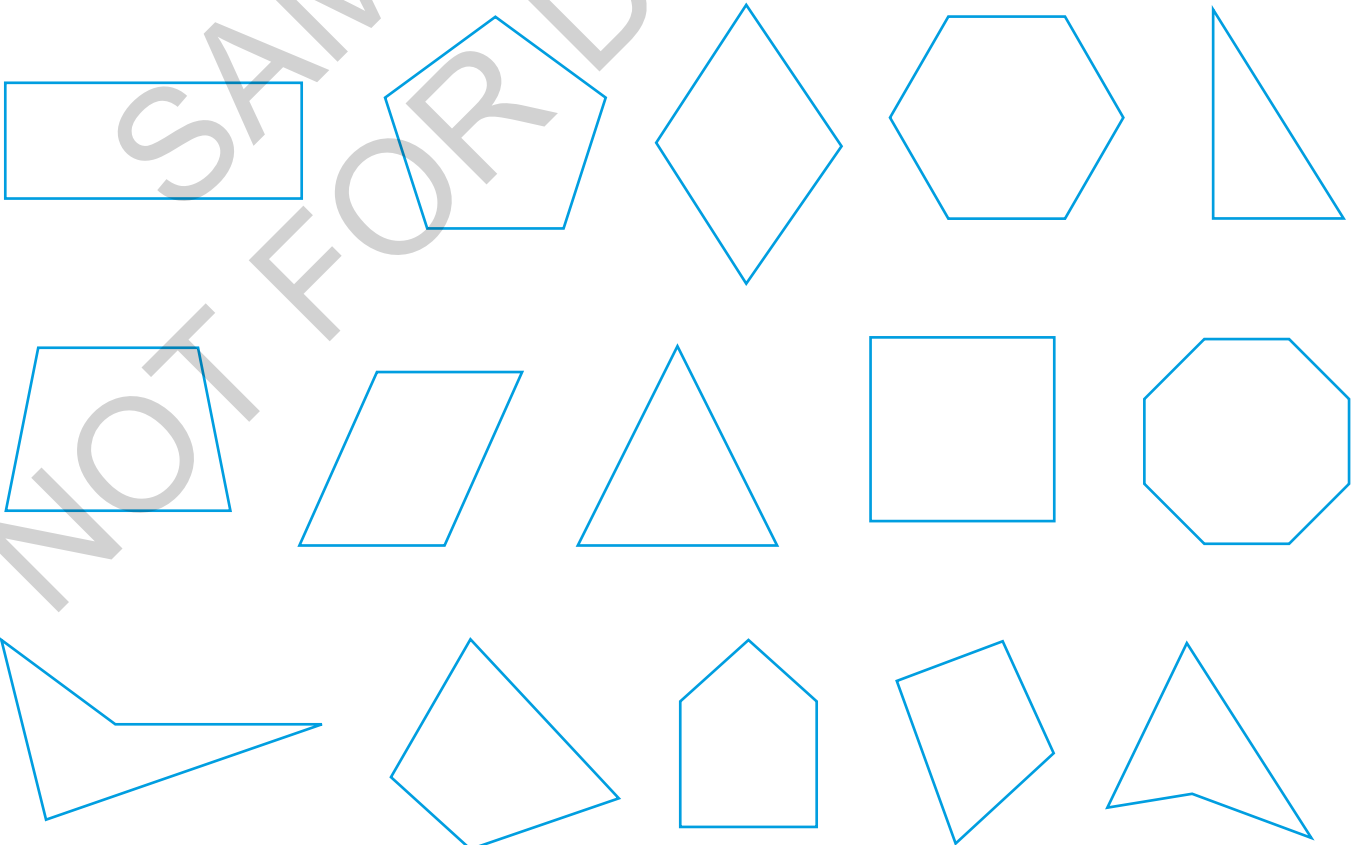


rhombus



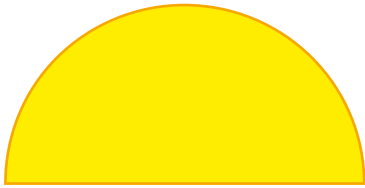
square

2 Colour triangles **pink**. Colour quadrilaterals **orange**.
Colour shapes with more than four sides **green**.



1 Draw one line of symmetry for each shape.

a



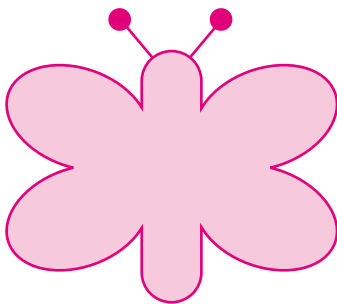
b



Symmetry
Both sides match
when folded
on the line of
symmetry.



c



d

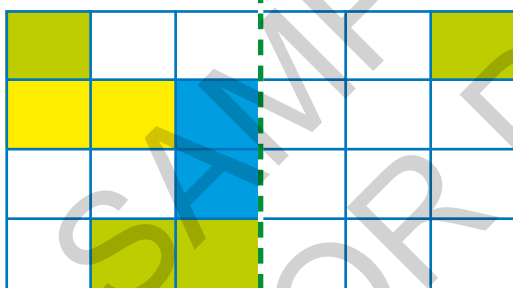


e



2 Colour to make each pattern symmetrical.

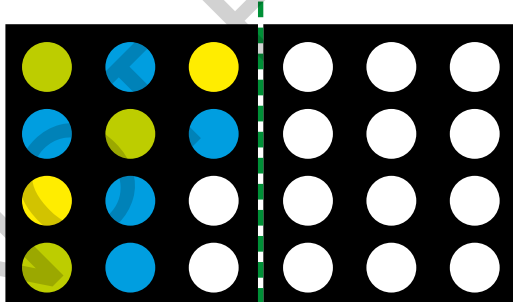
a



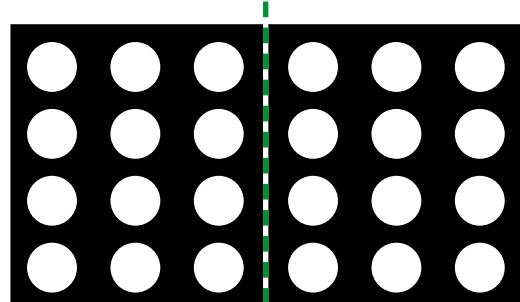
b



c



d



Mastery Checklist I can:

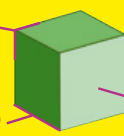
- ☐ recognise parallel lines and sides
- ☐ identify and draw a trapezium and a rhombus
- ☐ draw lines of symmetry
- ☐ complete symmetrical designs
- ☐ identify and count attributes of 2D shapes

Faces, edges and vertices

Faces are flat surfaces.

vertex

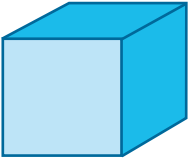
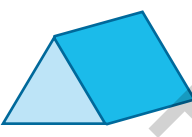
edge



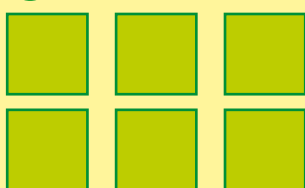
face

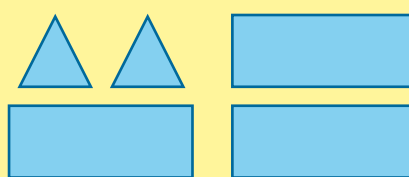
TERM 1
Week 9

Complete the table.

Shape	Number of faces	Number of edges	Number of vertices	Number of curved surfaces
 cube				
 cylinder				
 cone				
 rectangular prism				
 triangular prism				

Challenge Which 3D objects could you make from these faces?



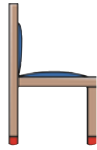


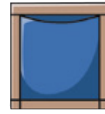
Top, front and side view

TERM 1
Week 9

1 Is the view from the top, front or side?

a chair







b elephant



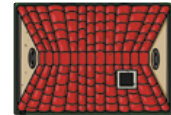




c house

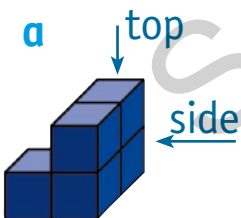








2 Make each model. Draw the different views.



a

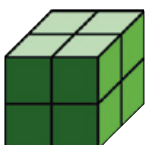
front	side	top
--------------	-------------	------------

b



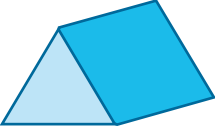
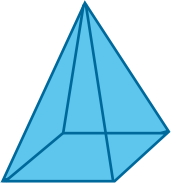
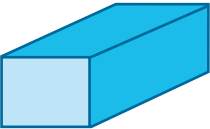
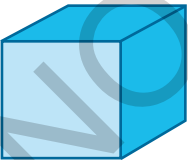
front	side	top
--------------	-------------	------------

c



front	side	top
--------------	-------------	------------

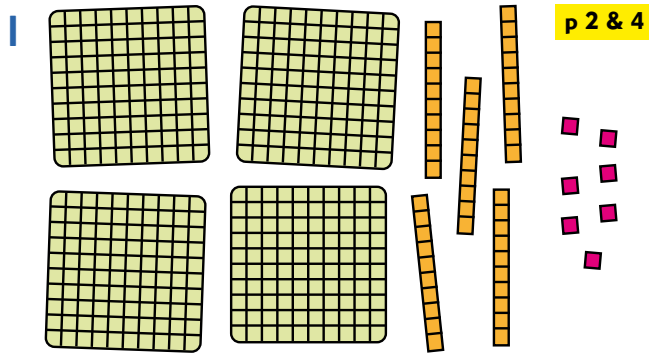
Draw each view of these 3D objects as a 2D shape.

	front	top	side
			
			
			
			
			
			

Mastery Checklist

- I can: ☐ identify the attributes of 3D objects
☐ recognise different views of items
☐ draw different views of block models and 3D objects

Checkpoint 2



p 2 & 4

a hundreds tens ones

b + + =

2 Write 260 in words. p 3

3 a Circle the largest number. p 6

253 **523** **325**

b Circle the smallest number.

612 **602** **620**

4 Complete: p 8

a 378, 388, ,

b 246, 346, ,

5 Use 2, 0, 5 to make the: p 10

a biggest number.

b smallest number.

6 Use the number line. p 13

$$15 + 18 + 23 = \boxed{}$$



7 Use the number line. p 14

$$372 + 122 = \boxed{}$$



8 Use the number line. p 15

$$46 - 27 = \boxed{}$$



9 Use the number line. p 16

$$867 - 531 = \boxed{}$$



10 a p 17 & 18



$$10 + 10 + 10 + 10 = \boxed{}$$

b



3 threes are

$$3 \times 3 = \boxed{}$$

11 Fill in the equation. p 18



$$\boxed{} \times \boxed{} = \boxed{}$$

Checkpoint 2

12 Write the equation.

p 20

Draw a picture.

Abdul has 3 pies. He cuts each pie into 5 slices. How many slices of pie are there in total?



p 25

13 Write in the missing numbers.

a 95 90 _____ 80 75 _____

b 78 _____ 58 _____ 38

c 29 27 _____ 21 19

d 48 _____ 42 39 _____ 33

14 Complete these equations.

p 29

a $73 + \underline{\hspace{2cm}} = 100$

b $68 + \underline{\hspace{2cm}} = 100$

15 Partition to add.

p 30

$54 + 12 + 31 = \underline{\hspace{2cm}}$

16 Match.

p 31 & 35

a $425 - 10 =$

352

b $713 + 100 =$

813

c $452 - 100 =$

721

d $731 - 10 =$

415

17 Write the equation and answer.

p 35

Kaia has 239 stickers. She gives 100 to May. How many left?

$$\boxed{} \boxed{} \boxed{} = \boxed{}$$

18 Subtract place values.

p 37

$894 - 352 = \underline{\hspace{2cm}}$

$800 - 300 = \underline{\hspace{2cm}}$

$90 - 50 = \underline{\hspace{2cm}}$

$4 - 2 = \underline{\hspace{2cm}}$

p 38

19

	Number of sides	Number of vertices
a 		
b 		
c 		

20 Name shapes **b** and **c**.

p 39 & 40

b _____

c _____

p 42

21 Draw a line of symmetry on each shape in question 19.

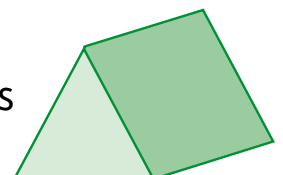
22 This shape has:

p 43

a _____ faces

b _____ vertices

c _____ edges



1 Draw lines to match.

1 2 3 4 5 6 7 8 9 10

rima ono toru iwa tahi rua tekau waru whā whitu

2 Write the numbers.

- | | |
|--------------------------|-----------------------------|
| a tekau mā whā _____ | b tekau mā waru _____ |
| c rua tekau _____ | d rima tekau _____ |
| e ono tekau mā iwa _____ | f toru tekau mā whitu _____ |

3 Write in te reo Māori.

- | |
|------------|
| a 12 _____ |
| b 43 _____ |
| c 75 _____ |
| d 89 _____ |

Write 3-digit
numbers in place
value order:
hundreds, tens
and ones

4 Colour the words to match.

1	10	100
tekau	tahi	kotahi rau

- 5 a What does 'rau' mean? _____
- b What does 'kotahi' mean? _____
- c What do you think 'mano' means? _____

6 Write the numbers.

- | | |
|--------------------------------|-------|
| a kotahi rau toru tekau mā rua | _____ |
| b ono rau iwa tekau mā rima | _____ |
| c whitu rau rima tekau mā iwa | _____ |
| d whā rau waru tekau mā whā | _____ |
| e toru rau ono tekau mā tahi | _____ |



Comparing numbers

TERM 2
Week 1

1 Write the correct symbol in the box: $>$ or $<$.

a $17 \square 71$

b $23 \square 27$

c $34 \square 27$

d $156 \square 147$

e $228 \square 282$

f $729 \square 927$

2 Write a number in each box to make a true number sentence.

a $74 > \square$

b $23 < \square$

c $17 > \square$

d $398 < \square$

e $734 < \square$

f $565 > \square$

3 Does the number sentence match the story? Circle true or false.

- a Dizzy has fifteen bananas. Mango has more. She has nineteen bananas.



$19 > 15$

true false

- b Ruby buys twenty-nine bows. Doc buys the same number of bow ties.



$29 = 29$

true false

- c Waldo sleeps for fifty minutes. Mango sleeps for less time. She sleeps for forty minutes.



$50 < 40$

true false

4 True or False? Write T or F.

a $23 > 20 + 1$ _____

b $84 > 40 + 8$ _____

c $75 < 70 + 2$ _____

d $600 > 610$ _____

e $111 < 222$ _____

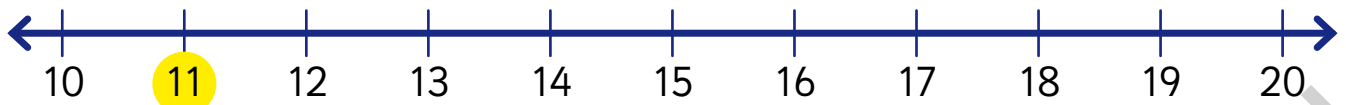
f $35 = 30 + 5$ _____

Rounding numbers

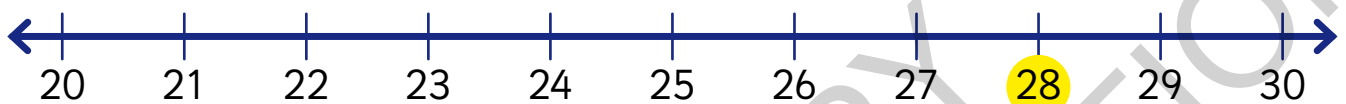
TERM 2
Week 1

1 Round the number to the nearest ten. Circle your answer.

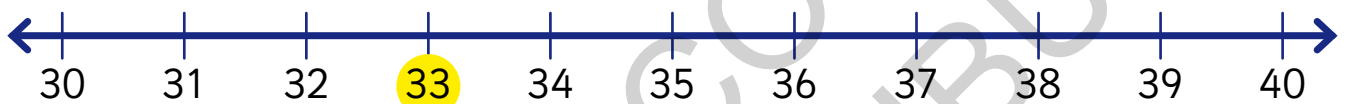
a



b



c



d



e



2 Round the number to the nearest ten. Write your answer.

a 55

b 62

c 79

d 84

e 91

f 97



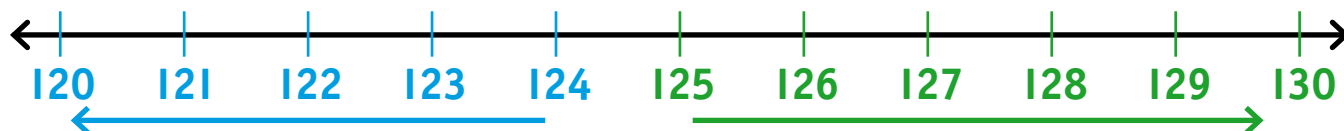
3 Circle the numbers that round to 50. 44 45 49 59 54 55

4 A number rounds to 90. What could it be?
Write five different numbers that round to 90.



Nearest ten or hundred

TERM 2
Week 1

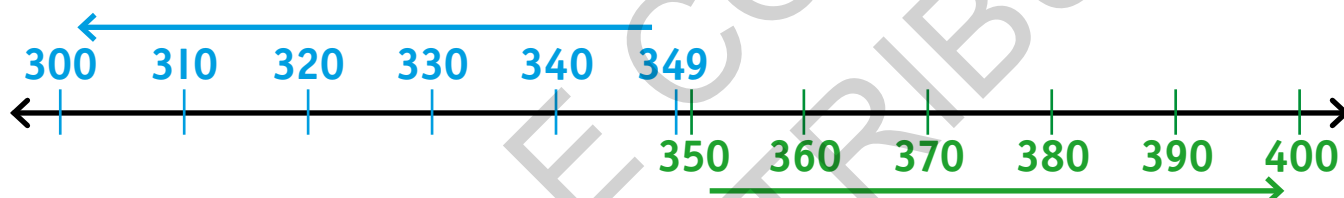


1 Round to the nearest 10.

a 507 → _____ b 965 → _____ c 284 → _____ d 651 → _____

2 Circle the nearest ten.

a 267 is closer to 260 or 270
b 414 is closer to 410 or 420
c 598 is closer to 590 or 600



3 Round to the nearest 100.

a 832 → _____ b 281 → _____ c 449 → _____
d 950 → _____ e 748 → _____ f 125 → _____

4 Complete.

Number	Nearest 10	Nearest 100
143		
368		
685		

5 Write five numbers that round to 700 when rounded to the nearest hundred.

Mastery Checklist

- I can:
- ☐ know numbers to 1,000 in te reo Māori
 - ☐ compare 2-digit and 3-digit numbers
 - ☐ round 2-digit numbers to the nearest ten
 - ☐ round 3-digit numbers to the nearest ten or hundred



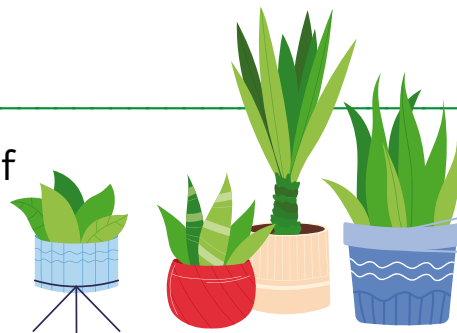
Estimates

Jo has a lot of pots. She wants to fill them all with plants.
Help Jo estimate what she needs for her garden.

- 1 Jo has 137 big pots and 246 medium ones. About how many pots is that?
Round to the nearest ten and add: _____ = _____
- 2 Jo has 159 small pots and 128 tiny ones. About how many pots is that?
Round to the nearest ten and add: _____ = _____
- 3 About how many pots altogether? Round both totals to the nearest hundred and add: _____ = _____
- 4 Jo has 396 flower plants and 247 herb plants. About how many plants in total? Round to the nearest ten and add:
_____ = _____
- 5 What is the difference between the number of pots and the number of plants? Subtract plants from pots: _____ = _____
- 6 Jo needs to buy about _____ plants.
- 7 Each pot will also need two water bottles. About how many bottles are needed?

- 8 Each pot will need three teaspoons of fertiliser. About how many teaspoons of fertiliser are needed altogether?

- 9 Jo needs to buy about _____ teaspoons of fertiliser and _____ water bottles.



I can solve a problem by:

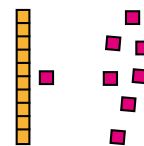
- ☐ rounding numbers ☐ estimating calculations

Addition using algorithms

TERM 2
Week 2

tens	ones
1	1
+	7

We read this
as 11 + 7



$11 + 7 = \boxed{}$

2 Here are some more.

a

tens	ones
1	0
+	6

b

tens	ones
1	2
+	5

c

tens	ones
1	5
+	3

d

tens	ones
1	7
+	2

e

tens	ones
1	1
+	4

f

tens	ones
1	6
+	3

3 a

13
+
3

b

17
+
2

c

11
+
6

d

10
+
8

e

12
+
7

f

14
+
5

g

18
+
2

h

13
+
7

Challenge! How many ways can you add to 20?

Using 2 numbers.

13	15	9
11	16	10
5	7	4

Using 3 numbers.

4	7	11
3	5	8
6	9	10

Using 4 numbers.

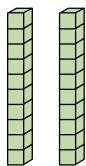
5	1	9
7	4	8
2	3	6

1 Write in the algorithms.

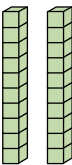
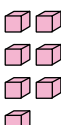
a

Tens	Ones
	
+	

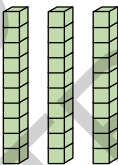
b

Tens	Ones
	
+	

c

Tens	Ones
	
+	

d

Tens	Ones
	
+	

2 Complete. Match each answer to a key.

a

4	5
+ 2	3



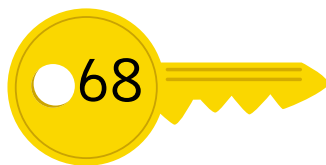
b

3	4
+ 2	4



c

2	3
+ 1	4



d

6	2
+ 1	5



More addition algorithms

TERM 2
Week 2

Add the ones, then the tens.

1 a

tens	ones
1	4
+	1 3

b

tens	ones
2	6
+	1 1

c

tens	ones
2	5
+	2 2

d

tens	ones
3	7
+	1 2

e

tens	ones
3	1
+	2 8

f

tens	ones
3	0
+	3 9

2 a

$$\begin{array}{r} 43 \\ + 46 \\ \hline \\ \hline \end{array}$$

b

$$\begin{array}{r} 54 \\ + 24 \\ \hline \\ \hline \end{array}$$

c

$$\begin{array}{r} 65 \\ + 31 \\ \hline \\ \hline \end{array}$$

d

$$\begin{array}{r} 36 \\ + 22 \\ \hline \\ \hline \end{array}$$

e

$$\begin{array}{r} 41 \\ + 37 \\ \hline \\ \hline \end{array}$$

f

$$\begin{array}{r} 54 \\ + 45 \\ \hline \\ \hline \end{array}$$

g

$$\begin{array}{r} 37 \\ + 40 \\ \hline \\ \hline \end{array}$$

h

$$\begin{array}{r} 68 \\ + 11 \\ \hline \\ \hline \end{array}$$

i

$$\begin{array}{r} 75 \\ + 23 \\ \hline \\ \hline \end{array}$$

3 Write the algorithms.

a $76 - 55 =$

$$\begin{array}{r} \text{-----} \\ - \\ \hline \\ \hline \end{array}$$

b $94 - 71 =$

$$\begin{array}{r} \text{-----} \\ - \\ \hline \\ \hline \end{array}$$

c $89 - 68 =$

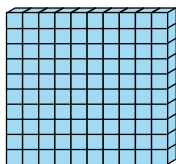
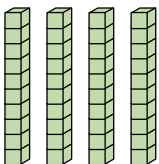
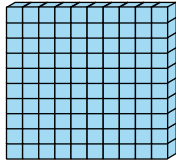
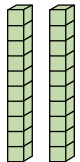
$$\begin{array}{r} \text{-----} \\ - \\ \hline \\ \hline \end{array}$$

Add 3-digit numbers

TERM 2
Week 2

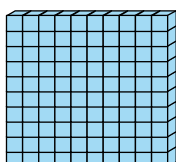
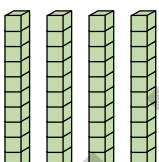
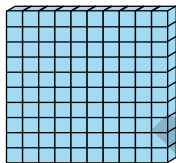
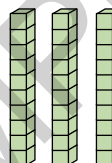
I Write the algorithms.

a

Hundreds	Tens	Ones
		
		

+

b

Hundreds	Tens	Ones
		
		

+

2 Add.

a

2	7	5
+	1	2

b

3	1	4
+	2	5

c

5	8	2
+	4	0

d

8	3	6
+	1	4

Use an algorithm and find the answer.

- 1 Doc walked 351 metres to the shop.
He took a shortcut home and only walked 338 metres.

Doc walked _____ metres.

+	

- 2 Ruby ran around the park 427 times.
She had a rest. Then she ran another 161 times around the park.

Ruby ran around the park _____ times.

+	

- 3 Mango did 482 star jumps.
Dizzy did 513 star jumps.

Together they did _____ star jumps.

+	

- 4 Waldo ate 136 little fish biscuits.
There were 741 biscuits left in the box.
When Waldo first bought the box of fish biscuits, it had _____ biscuits.

+	

Mastery Checklist

- I can: ☐ use vertical algorithms to add 2-digit and 3-digit numbers
☐ solve problems using algorithms

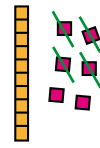
Subtraction using algorithms

TERM 2
Week 3

1

tens	ones
1	6
-	4

We read this
as 16 - 4.



16 - 4 =

2 Here are some more.

a

tens	ones
1	8
-	2

b

tens	ones
1	5
-	3

c

tens	ones
1	9
-	7

d

tens	ones
1	7
-	5

e

tens	ones
1	4
-	4

f

tens	ones
1	8
-	7

g

1	6
-	4

h

1	5
-	0

i

2	0
-	0

j

1	9
-	9

k

2	7
-	6

l

2	2
-	0

m

2	6
-	1

n

2	3
-	2

Challenge! You have \$20. You must spend it all at the pet shop. How could you spend the money? Find 3 different ways.



• \$2 each



• \$5 each



• \$6 each



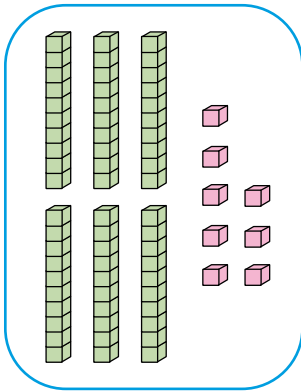
• \$12 each

Subtract 2-digit numbers

TERM 2
Week 3

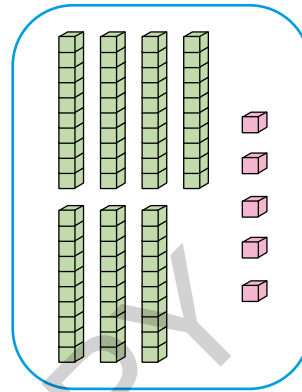
1 Subtract ones, then tens.

a



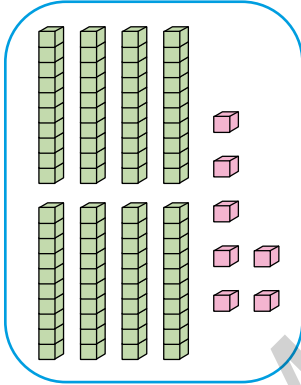
Tens	Ones
6	8
– 3	5

b



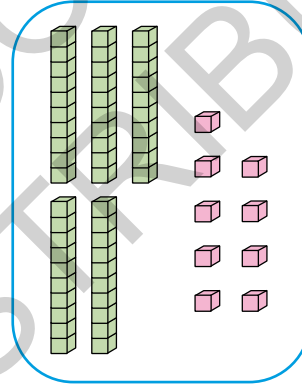
Tens	Ones
7	5
– 2	4

c



Tens	Ones
8	7
– 4	0

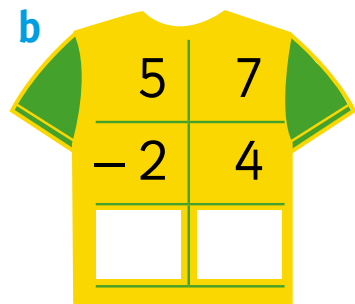
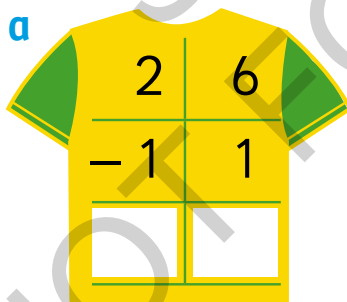
d



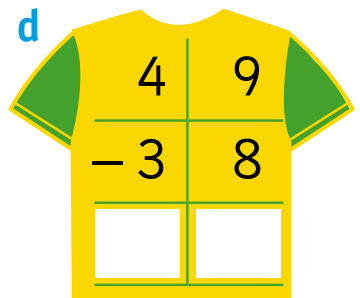
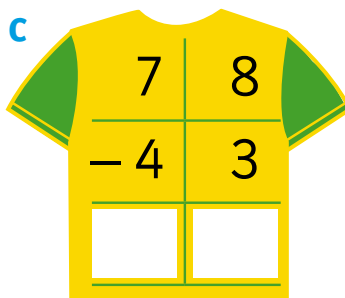
Tens	Ones
5	9
– 1	9

2 Complete. Match each answer to a basket.

a



c



Subtract 3-digit numbers

TERM 2
Week 3

1 Complete the algorithms.

a
$$\begin{array}{r} 97 \\ - 72 \\ \hline \\ \hline \end{array}$$

b
$$\begin{array}{r} 48 \\ - 26 \\ \hline \\ \hline \end{array}$$

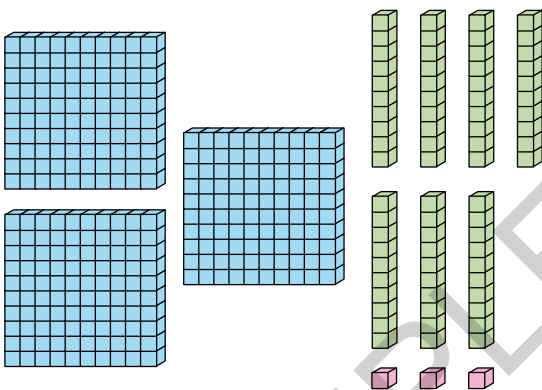
c
$$\begin{array}{r} 82 \\ - 30 \\ \hline \\ \hline \end{array}$$

d
$$\begin{array}{r} 53 \\ - 12 \\ \hline \\ \hline \end{array}$$

e
$$\begin{array}{r} 79 \\ - 63 \\ \hline \\ \hline \end{array}$$

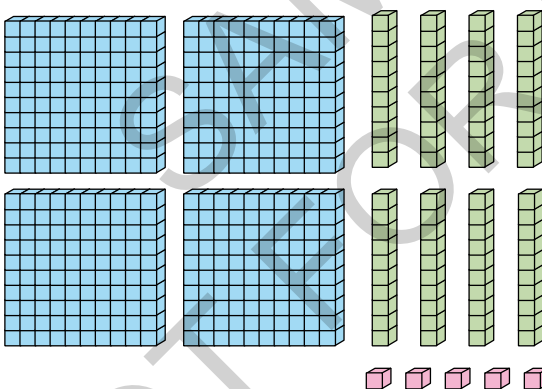
2 Subtract ones, tens, then hundreds.

a



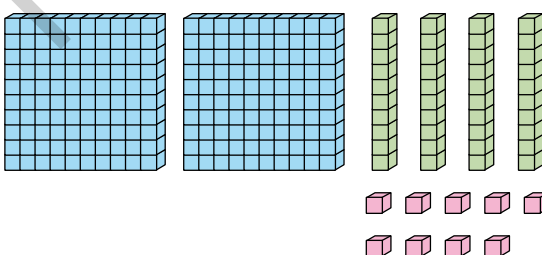
Hundreds	Tens	Ones
3	7	3
– 1	4	2

b



Hundreds	Tens	Ones
4	8	5
– 3	7	3

c



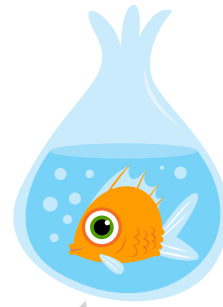
Hundreds	Tens	Ones
2	4	9
– 1	0	8

Subtraction algorithms

TERM 2
Week 3

I Write an algorithm and find the answer.

- a Waldo saw 236 fish.
105 were silver. The rest were gold.
How many gold fish did Waldo see?





- b Mango flew 437 km in her rocket ship.
Ruby flew 213 km in her spaceship.
What is the difference?

- c Dizzy had 728 cookies in stock.
He sold 407 cookies today.
How many are left?





- d Doc's book is 876 pages long.
He has read 535 pages.
How many pages left?

1 Write the algorithm and the answer.

a $738 - 120 =$

b $474 - 322 =$

c $628 - 217 =$

d $948 - 616 =$

e $564 - 123 =$

f $848 - 407 =$

2 Calculate the answer.

a
$$\begin{array}{r} 559 \\ + 230 \\ \hline \end{array}$$

b
$$\begin{array}{r} 245 \\ + 132 \\ \hline \end{array}$$

c
$$\begin{array}{r} 382 \\ - 170 \\ \hline \end{array}$$

d
$$\begin{array}{r} 438 \\ - 335 \\ \hline \end{array}$$

3 a A library has 845 books.
231 books are borrowed.
How many books are left?

b A school had 768 pencils.
They handed out 243 pencils.
How many pencils does the school have left?

Mastery Checklist

I can: ☐ use vertical algorithms to subtract 2-digit and 3-digit numbers
☐ solve problems using algorithms

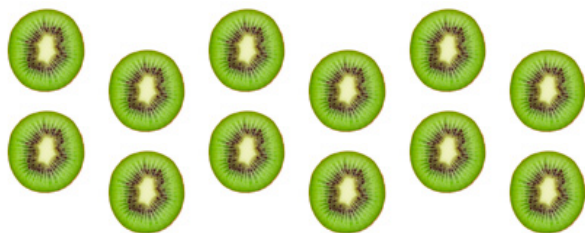
The division sign

$\div$
is the sign
that tells us
to divide.

TERM 2
Week 4

1 Divide into:

a 2 equal groups.



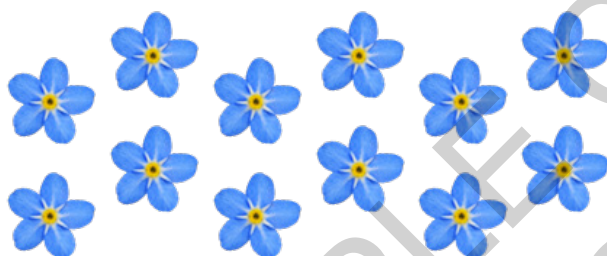
$$12 \div 2 = \square$$

b 4 equal groups.



$$12 \div 4 = \square$$

c 3 equal groups.



$$12 \div 3 = \square$$

d 6 equal groups.



$$12 \div 6 = \square$$

2 Complete.



a $6 \div 2 =$



b $\div =$

3 Write a division.



a $\square$

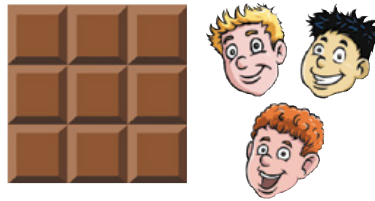


b $\square$

1 Divide equally.



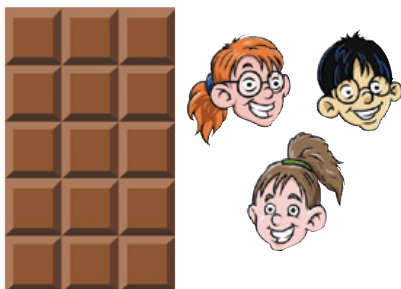
a $8 \div 2 = \square$



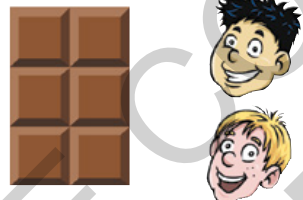
b $9 \div 3 = \square$



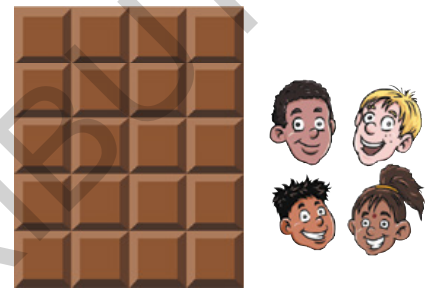
c $10 \div 2 = \square$



d $15 \div 3 = \square$



e $6 \div 2 = \square$



f $20 \div 4 = \square$

2 Write a division.



a $\square \div \square = \square$



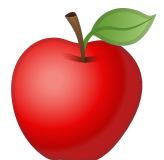
b $\square \div \square = \square$



c $\square \div \square = \square$

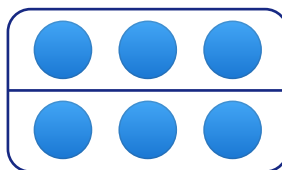
Draw a diagram

16 apples. How many different ways can you share them equally?

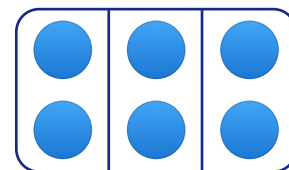


Arrays are laid out in **rows** and **columns**.

An array can show **division**.



$$6 \div 2 = 3$$



$$6 \div 3 = 2$$

1 Draw an array and complete the equation.

a 8 oranges divided into 2 rows.

b $8 \div 2 = \square$

2 a 12 apples divided into 3 columns.

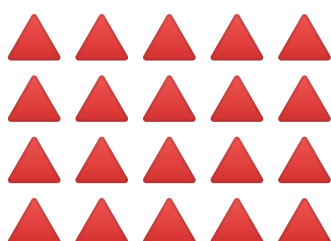
b $12 \div 3 = \square$

3 a $10 \div 2 = \square$

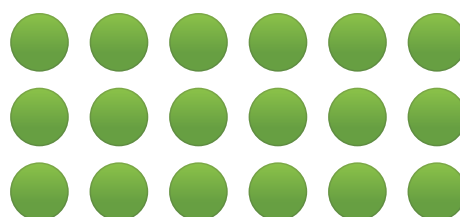
b $9 \div 3 = \square$

4 Write an equation to match the array.

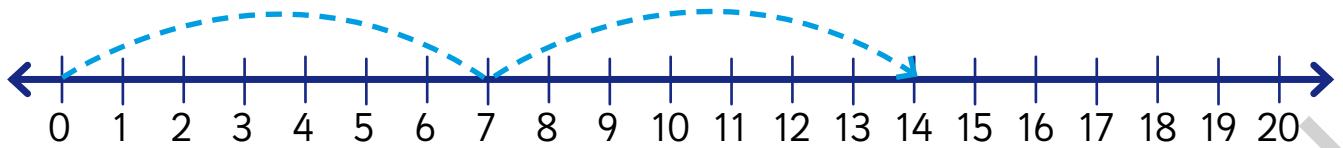
a $\square \div \square = \square$



b $\square \div \square = \square$

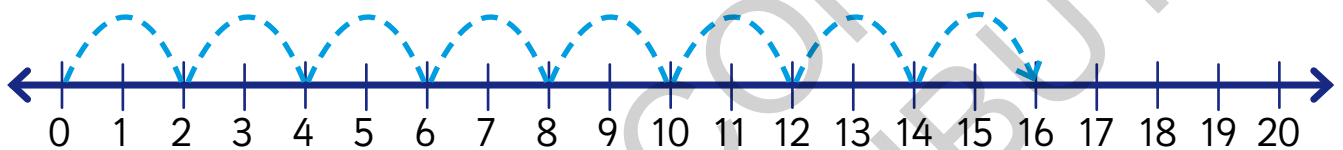


1 How many 7s in 14?



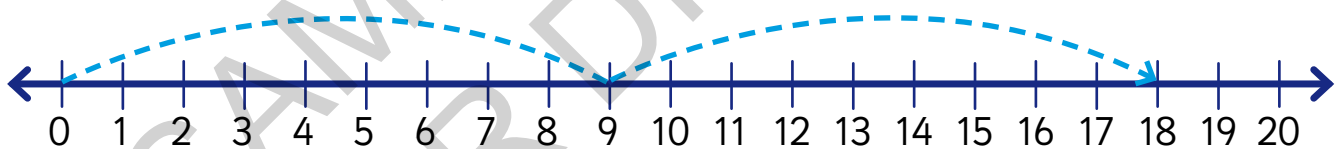
There are _____ 7s in 14. $14 \div 7 =$ _____

2 How many 2s in 16?



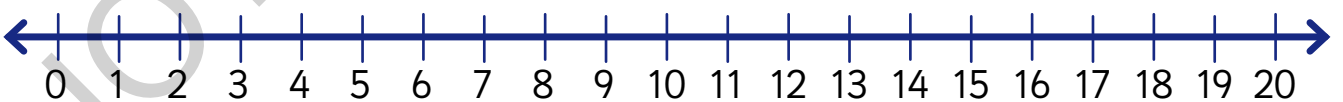
There are _____ 2s in 16. $16 \div 2 =$ _____

3 How many 9s in 18?



There are _____ 9s in 18. $18 \div 9 =$ _____

4 Use the number line to find the answers.

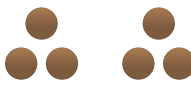
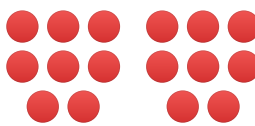
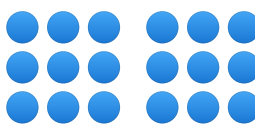
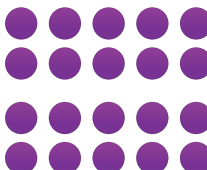


a $14 \div 2 =$ _____ **b** $15 \div 3 =$ _____ **c** $16 \div 4 =$ _____

d $18 \div 2 =$ _____ **e** $18 \div 3 =$ _____ **f** $18 \div 6 =$ _____

g $20 \div 4 =$ _____ **h** $20 \div 5 =$ _____ **i** $20 \div 10 =$ _____

Complete the table.

$2 \times 1 = 2$	Double 1 is _____		Half of 2 is _____	$2 \div \underline{\hspace{1cm}} = 1$
$2 \underline{\hspace{1cm}} = 4$	$\underline{\hspace{1cm}} 2$ is 4		$\underline{\hspace{1cm}}$ of 4 is 2	$4 \div \underline{\hspace{1cm}} = 2$
$2 \underline{\hspace{1cm}} = 6$	Double 3 is _____		Half of 6 is _____	$6 \underline{\hspace{1cm}} = 3$
$2 \times 4 = 8$	Double 4 is _____		Half of 8 is _____	$8 \div \underline{\hspace{1cm}} = 4$
$2 \underline{\hspace{1cm}} = 10$	Double 5 is _____		Half of 10 is _____	$10 \div 2 = \underline{\hspace{1cm}}$
	Double 6 is _____		Half of _____ is 6	
$2 \underline{\hspace{1cm}} = 14$				$14 \div 2 = \underline{\hspace{1cm}}$
			Half of 16 is _____	$16 \div 2 = \underline{\hspace{1cm}}$
$2 \underline{\hspace{1cm}} = 18$	Double _____ is 18			
				

Mastery Checklist

I can: ☐ make groups, use arrays and jump along number lines to divide
☐ fill in facts using 2 to multiply and divide, double and halve

Equivalence with coins

TERM 2
Week 5

I Draw one coin to match.

a



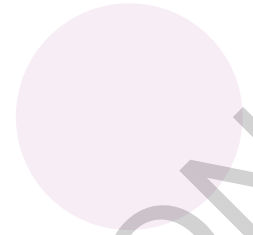
=



b



=



c



=



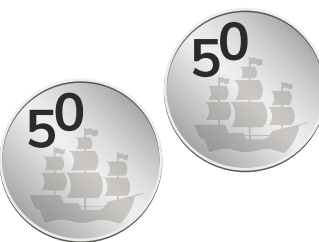
d



=



e



=



f



=



g



=



h

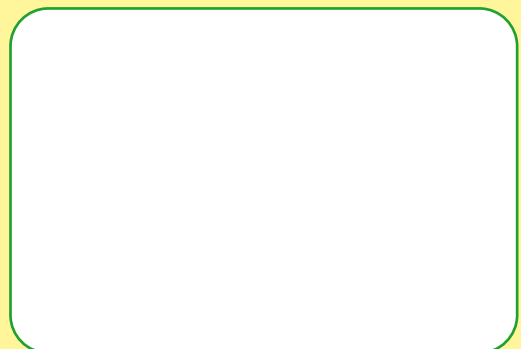
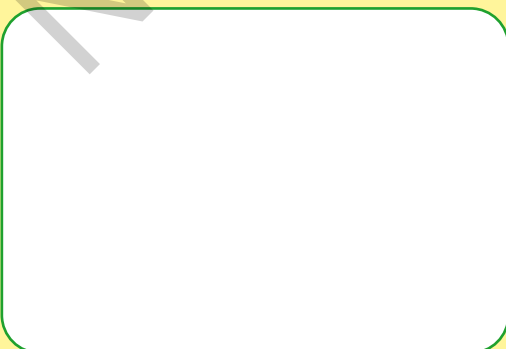


=



Challenge!

Make \$2 in different ways. Draw two ways here.



Amounts in dollars

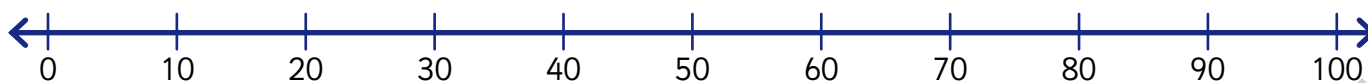
TERM 2
Week 5



Show how to make each amount using the coins and notes above.

1	\$8	
2	\$17	
3	\$35	
4	\$44	
5	\$53	
6	\$86	
7	\$101	
8	\$139	
9	\$352	

Use the number line to find the total.



- 1 Ruby has 20 cents. She is given another 20 cents. Then she spends 30c. How much does she have now?

 c


- 2 Waldo has 80c. He buys a toy for 50c. Then he buys lollies for 20c. How much money is left?

 c


Add or take away? Complete the equation.

- 3 Mango buys a banana for 50c and an apple for 20c. How much does she spend in total?

$$50c \quad \boxed{} \quad 20c = \boxed{} c$$



- 4 Dizzy has 60c. Doc has 40c. What is the difference between their amounts?

$$60c \quad \boxed{} \quad 40c = \boxed{} c$$



- 5 Waldo has 90c. He buys a hot dog for 70c. How much does he have left?

$$90c \quad \boxed{} \quad 70c = \boxed{} c$$



- 6 Ruby finds a 50 cent and a 10 cent piece on the ground. How much does she have altogether?

$$50c \quad \boxed{} \quad 10c = \boxed{} c$$



1 Count on or back by tens to find the answer.

- a Sam wants to buy a football for \$35 and a cap for \$10.
How much money does he need? _____



- b Pam has \$55 and her grandma gives her \$20 more.
How much money does she have now? _____

- c Cam has \$60. She buys a gift for \$30.
How much does she have left? _____



2 Write an algorithm to solve the problem.

- a Jim earns \$40 one day and \$45 the next day. How much money has he earned in all?

- b Kim sold her three dolls for \$20, \$15 and \$30 each. How much money did she make?

Mastery Checklist I can: ☐ make equivalent amounts of money
☐ make amounts in coins and notes
☐ solve money using addition and subtraction

Checkpoint 3

Write an answer.

1 Write the correct symbol: < or >.

a 23 32

b 196 195

c 322 233

2 Round to the nearest 10.

a 54

b 75

c 137

3 Round to the nearest 100.

a 137

b 550

c 679

4 Juan planted 547 tomatoes, 103 pumpkins and 287 lettuce seedlings on her farm. If they all survive, about how many plants is that?

5 a

$$\begin{array}{r} 16 \\ + 13 \\ \hline \\ \hline \end{array}$$

b

$$\begin{array}{r} 24 \\ + 33 \\ \hline \\ \hline \end{array}$$

6 a

$$\begin{array}{r} 18 \\ - 4 \\ \hline \\ \hline \end{array}$$

b

$$\begin{array}{r} 29 \\ - 15 \\ \hline \\ \hline \end{array}$$

7

$$\begin{array}{r} 559 \\ + 230 \\ \hline \\ \hline \end{array}$$

Shade one bubble.

789
☐

889
☐

699
☐

891
☐

Checkpoint 3

8

$$\begin{array}{r} 158 \\ - 36 \\ \hline \end{array}$$

Shade one bubble.



118

☐

110

☐

122

☐

124

☐

9 Write an equation to match the array.

Write an answer.

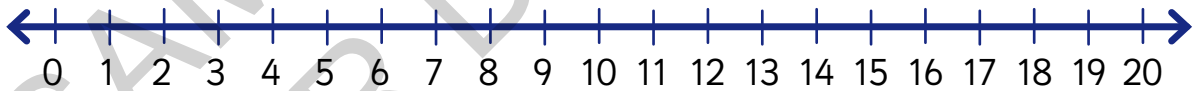


$$\boxed{} \div \boxed{} = \boxed{}$$

10 Use the number line to find the answer. Write the equation.

How many 3s in 18?

a



b

$$\boxed{} \boxed{} \boxed{} = \boxed{}$$

11 Complete the matching number sentences.

a Double 7 is _____. $2 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

b Half of 16 is _____. $16 \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

12 Make \$1.20 with two different sets of coins.

a

b

Measuring with metres

TERM 2
Week 6

1 Match.

 = 1 m

1 m



3 m



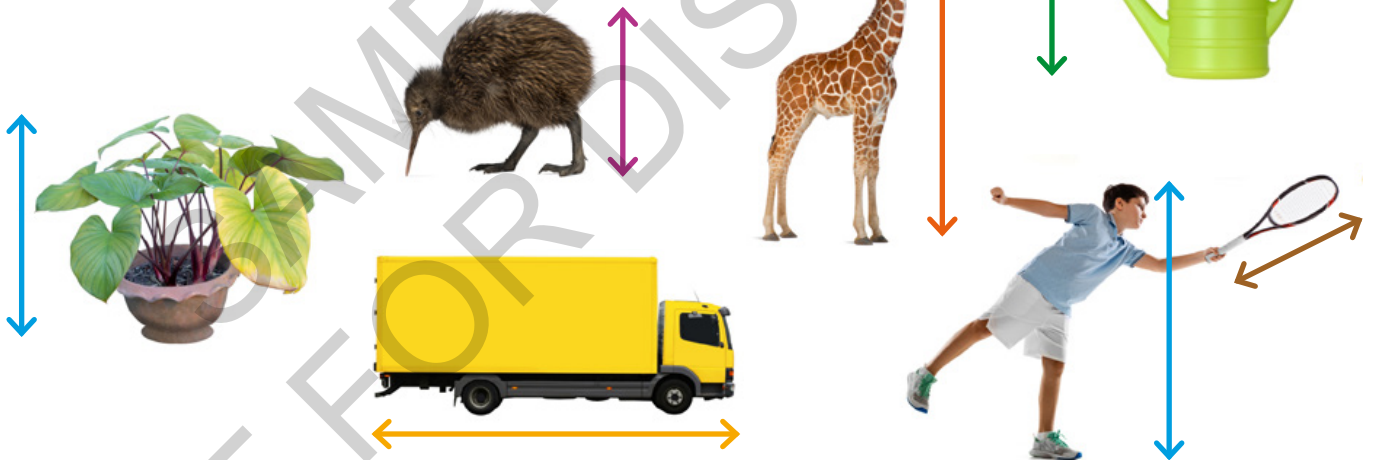
2 m



4 m



2 Draw lines to match.



more than 1 m

less than 1 m

3 What can you measure in metres? Circle.

distance

mass

height

capacity

volume

width

length

time

The metre



TERM 2
Week 6

1 Make a metre long measure.

Use



or



or



2 Use it to measure the following. Match each to a label.



shorter than
1 metre



about
1 metre

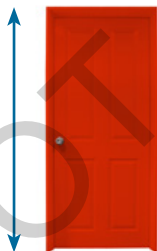


longer than
1 metre



3 Estimate each length in metres. Then measure each length.

a



about metres
 metres

b



about metres
 metres

c



about metres
 metres

d

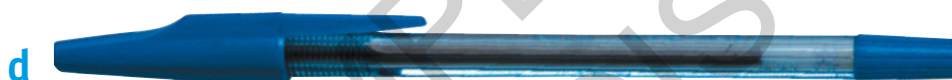


about metres
 metres

This pencil is 15 centimetres long. That's 15 cm.



1 How long in centimetres (cm)?



To measure small things we use the centimetre.
cm = centimetre

2 Draw lines:

a 6 cm long.

b 3 cm long.

c 11 cm long.

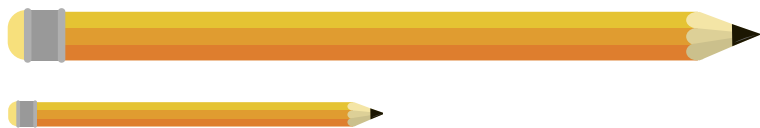
d 8 cm long.

3 a How wide is this page? _____

b How tall is this page? _____

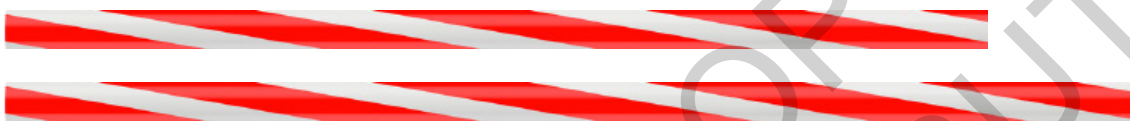
I Find the difference in centimetres. Use a ruler.

a



The difference is _____ cm.

b



The difference is _____ cm.

c



The difference is _____ cm.

d



The difference is _____ cm.

e



The difference is _____ cm.

Mastery Checklist

- I can:
- ☐ compare items to 1 m
 - ☐ estimate and measure in metres
 - ☐ measure and draw lengths in centimetres
 - ☐ find difference in lengths in centimetres



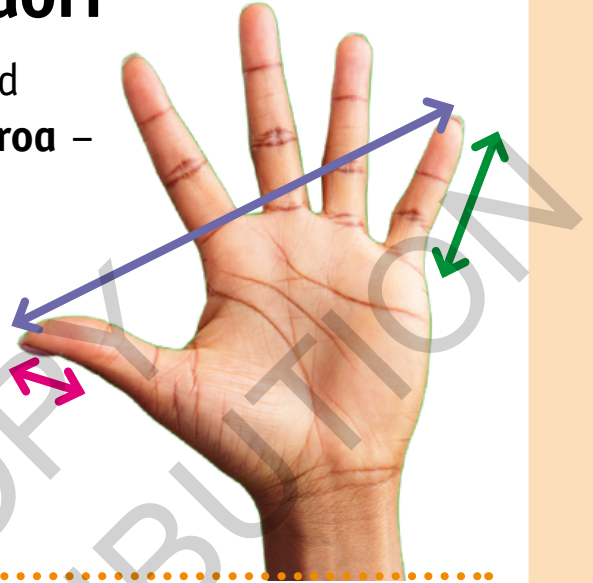
Ngāānenga Māori

Before rulers were used, Māori often measured lengths using parts of the body. Use **inenga roa** – length measurements the Māori way. You will need some string.

kōnui: length of the first part of the thumb

kōiti: length of the little finger

matikara: from tip of thumb to tip of little finger on outspread fingers



- Choose a measurement unit from above for each item below. Measure the item's length. Write the number and the unit.



Item	Measurement
Your pencil	
Your drink bottle	
Your desk	

- Compare your measurements with your classmates' measurements. Discuss: Did you choose the same units? Did you get the same measurements? _____

- If everyone in the class cuts a piece of string 2 matikara long using their own hands, would the strings all be the same length? Yes/No
Why? _____

I can solve a problem by:

☐ comparing measurements ☐ acting it out

1 Circle the numbers in each problem. Complete the equation.

- a Mango has 123 bananas in her basket and picks another 16 bananas. How many bananas altogether?



$$\square + \square = \square$$

- b Dizzy blew eighty bubbles but a dozen blew away. How many bubbles are left?



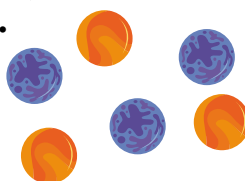
$$\square - \square = \square$$

2 Circle the clue words for the operation. Complete the number sentence.

- a Waldo bought a hundred cherries and ate thirteen on the way home. How many cherries are left?

$$100 \square 13 = \square$$

- b Ruby had 264 marbles and bought 120 more marbles. How many altogether?



$$264 \square 120 = \square$$

3 Write a number sentence. Find the answer.

- a Doc has 127 bow ties. Ruby has 212 hair bows. How many bows altogether?



- b Mango made 422 stickers and gave forty stickers to Waldo. How many stickers are left?

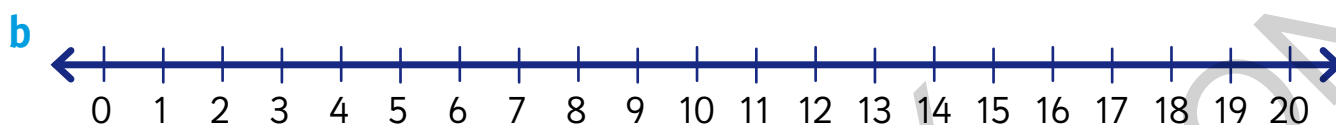
Checking calculations I

TERM 2
Week 7

- 1 Write the equation and solve this problem using the number line.
Petra baked 3 trays of 6 muffins. How many muffins in total?



a $\square \square \square = \square$



- 2 a Check your calculation by drawing a picture.

- b Is the answer the same? If it is, you have the correct answer.
If it is not the same, check your calculations again.

- 3 Write the equation and solve this problem using a vertical algorithm.

Lou needs 64 leaves for her project but she only has 42. How many more leaves does she need to collect?

a $\square \square \square = \square$



b

- 4 Check your calculation using the inverse operation.

a $\square \square \square = \square$

- b Is the answer 64? If it is, you are correct.
If it is not, check your calculations again.

Inverse operations

$14 + 5 = 19$
 $19 - 5 = 14$

$28 - 7 = 21$
 $21 + 7 = 28$

Checking calculations 2

TERM 2
Week 7

- 1 Write the equation and solve this problem using the number line.
Linda made 358 bracelets and sold 123. How many left?

a

--	--	--

 =

--

b



- 2 a Check your answer using rounding to the nearest ten.

b Is your answer close to the rounded answer? If not, try again.

- 3 Write the equation and solve this problem using a vertical algorithm.

Ben baked 255 cake pops and 132 donuts.
How many altogether?

a

--	--	--

 =

--

b

--	--	--

--	--	--

--	--	--

- 4 a Check your calculation with the inverse operations.

b Is your answer correct? If not, check again.

--	--	--

--	--	--

--	--	--

How to solve a word problem

TERM 2
Week 7

1 Write these details next to the steps below that they go with.

Choose a strategy. Underline the question.

Write an equation or an algorithm. Draw a diagram.

Use a different strategy. Circle the numbers and clue words.

Use inverse operations. Which operation? $+$ $-$ $\times$ $\div$

Step 1 Read the problem.

Step 2 Plan the work.

Step 3 Work the problem.

Step 4 Check the work.

2 In which step do you find the answer to the problem? Tick that step.

Mastery Checklist

- I can:
- ☐ read and interpret a word problem
 - ☐ plan a strategy for solving a word problem
 - ☐ use diagrams, equations and algorithms to work a word problem
 - ☐ answer a word problem
 - ☐ check answers using inverse operations, rounding or a different strategy



Length problems

For each problem:

Step 1 **Read.** Step 2 **Plan.** Step 3 **Work.** Step 4 **Check.**

- 1 Flappy Bird flew 116 metres before lunch and 212 metres after lunch. How many metres did he fly altogether?



- 2 Super Cat ran 242 metres to the shed and then another 221 metres to the back fence. How many metres did she run altogether?



- 3 Wiggly Worm wriggled 180 millimetres. Then she wriggled another 110 millimetres. She then turned and went back 60 millimetres. How far is she from where she started? Draw it.



I can solve a problem by:

- ☐ adding 3-digit numbers ☐ drawing a diagram or using an algorithm

What are you measuring?

TERM 2
Week 8

- I For each object, what could you measure?
What would you use to measure it?

We can measure:

- length
- area
- capacity
- volume
- mass
- time

Object	I could measure its	I could use a
a 	capacity mass	cup equal-arm balance
b 		
c 		
d 		
e 		
f 		



Challenge How many things can you find that measure time?

Draw them here.

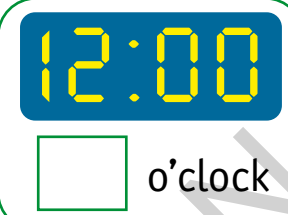
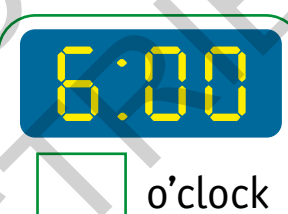


Half hours

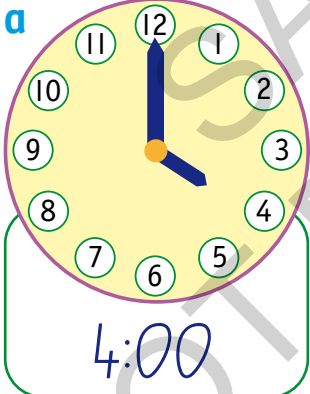
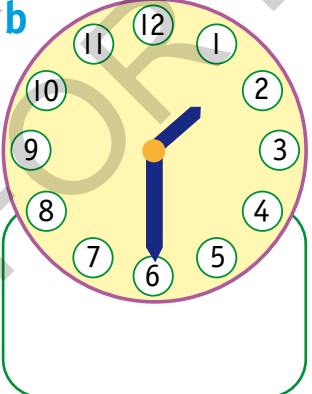
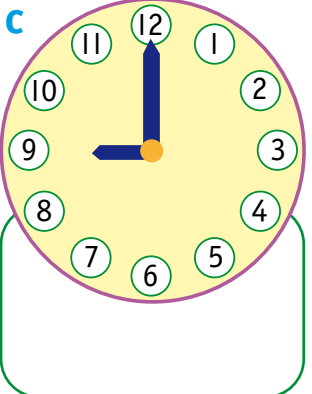
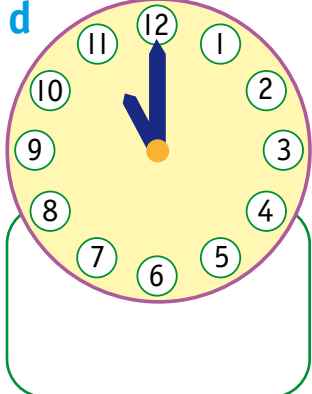
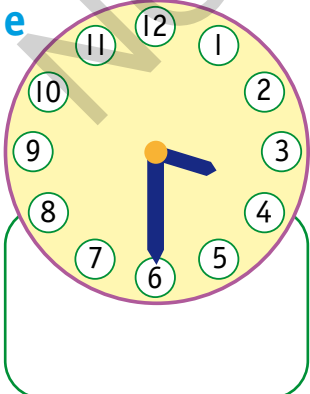
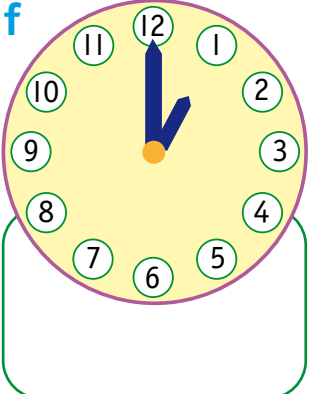
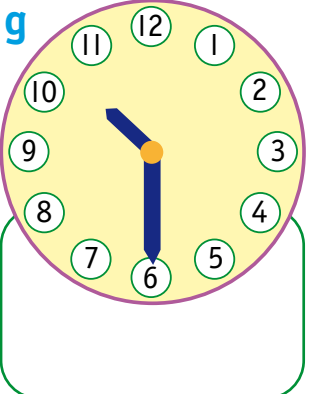
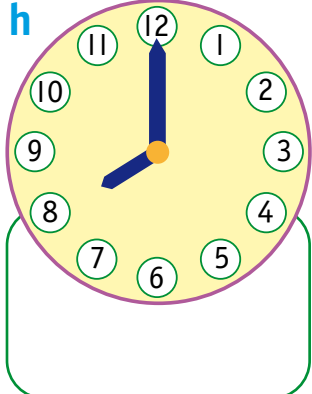
o'clock
big hand on 12
half-past
big hand on 6

TERM 2
Week 8

1 What time is it?

a  o'clock	b  o'clock	c  o'clock	d  o'clock
e  half-past	f  half-past	g  half-past	h  half-past
i  o'clock	j  half-past	k  o'clock	l  half-past

2 Write the digital time.

a  4:00	b 	c 	d 
e 	f 	g 	h 

Quarter times

There are
60 mins in
an hour.

TERM 2
Week 8

There are **15 mins** in a **quarter of an hour**.



1 o'clock



quarter-past 1

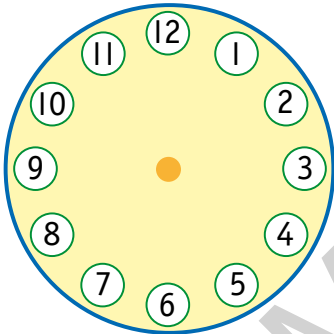


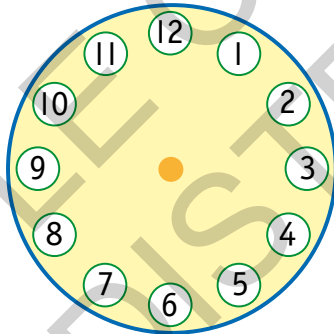
half-past 1



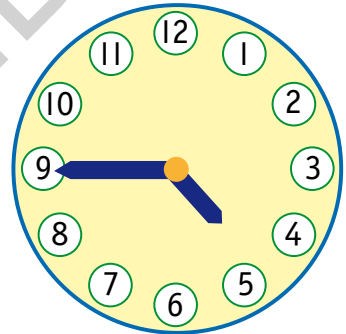
quarter to 2

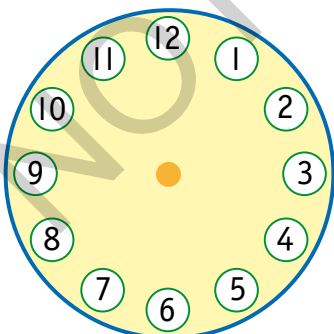
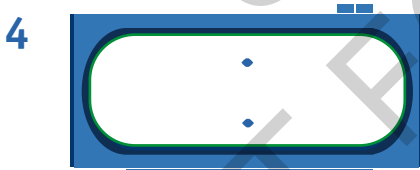
Fill in the matching times.



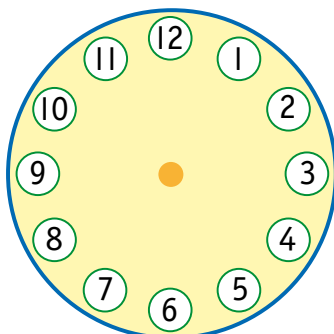


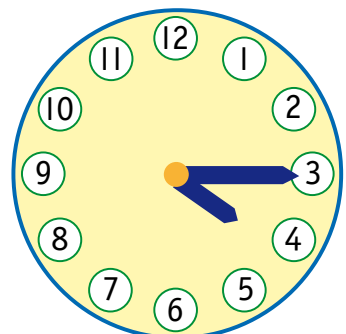
quarter-past 3





quarter to 10





1 Write the times.

a



_____ minutes
past 3

b



_____ minutes
past 9

c



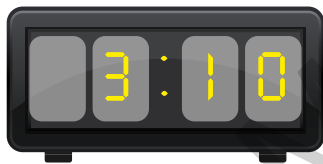
_____ minutes
past 7

d



_____ minutes
past 10

2 Match.



five-past one

ten-past three

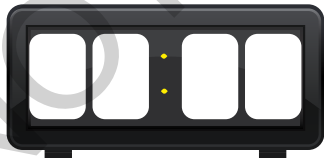
twenty-past four

six thirty-five



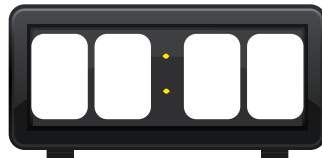
3 Write the times on the digital clocks.

a



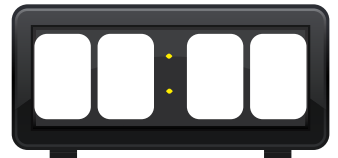
20 minutes past 11

b



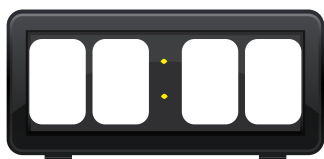
25 minutes past 2

c



5 minutes past 7

d



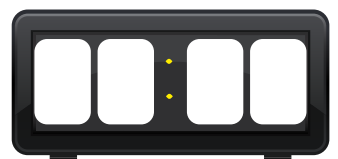
20 minutes past 12

e

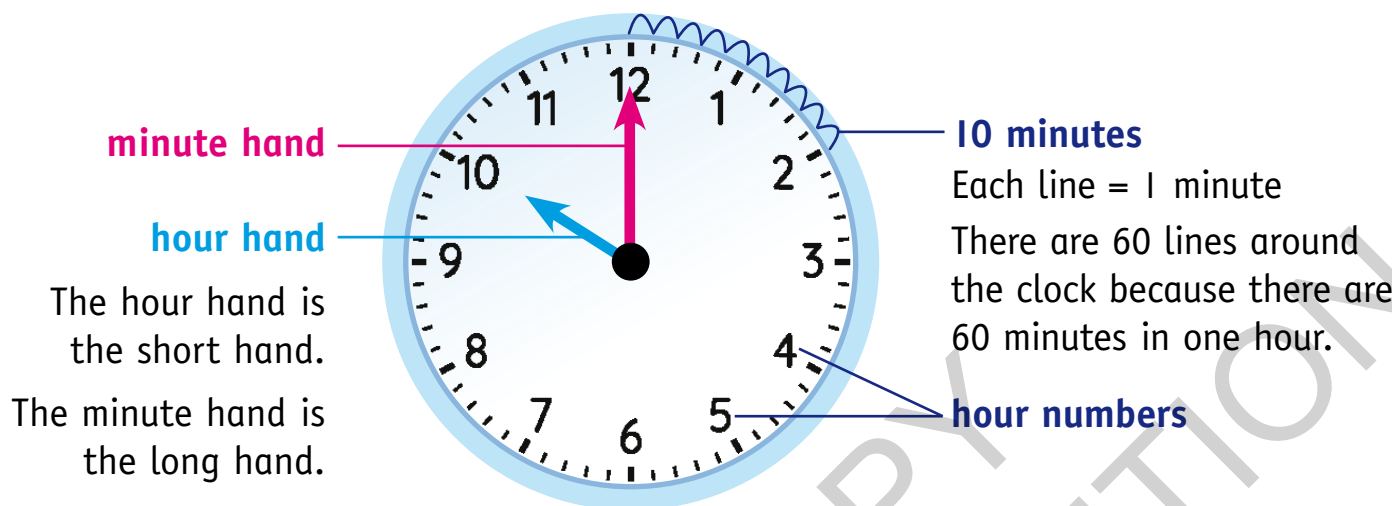


5 minutes past 5

f

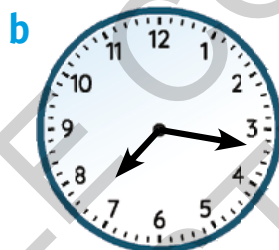


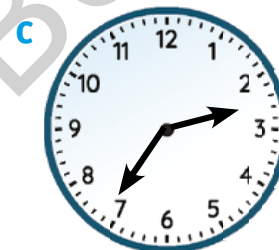
15 minutes past 1



1 Write the matching digital time.

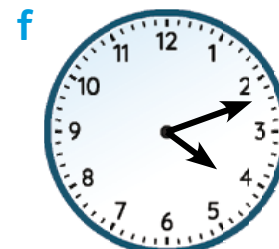








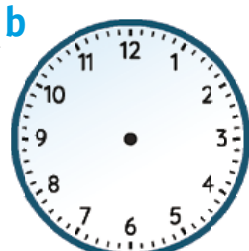




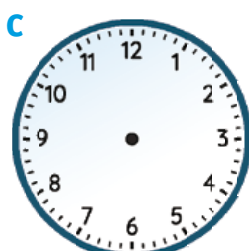
2 Draw these times.



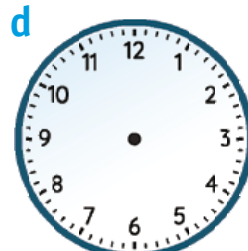
26 to 5



6 past 11



14 to 4



21 past 1



9 past 6

Mastery Checklist

- I can:
- ☐ work with analogue and digital clocks and times
 - ☐ read, write and show half and quarter hours
 - ☐ read and write times to the nearest 5 minutes
 - ☐ read, write and show time to the minute

1 Complete the calendar.

2023

JANUARY	FEBRUARY	MARCH	
S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
	JUNE		AUGUST
S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
SEPTEMBER		NOVEMBER	DECEMBER
S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

2 How many days?

January		February		March		April	
May		June		July		August	
September		October		November		December	

3 Circle these dates on the calendar.

- | | | |
|--------------------|-------------------|-------------------|
| a today | b your birthday | c New Year's Day |
| d 6th of August | e 15th of January | f 1st of June |
| g 28th of February | h Anzac Day | i 18th of October |

1 Will it take hours, minutes or seconds?

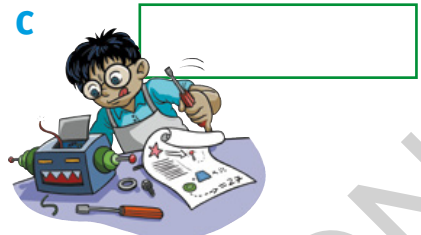
a



b



c



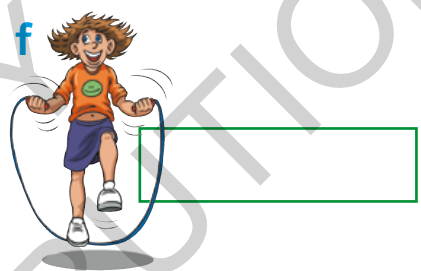
d



e



f



2 Write the missing numbers.

a There are minutes in 1 hour.

b There are minutes in half an hour.

c There are seconds in one minute.

d There are hours in one day.

e There are hours in half a day.



3 Draw something that takes:

a seconds

b minutes

c hours

- 1 a There are days in one week.
b There are months in one year.
c There are weeks in one year.

deci = 10
centi = 100
milli = 1,000

- 2 a Explain leap years: _____

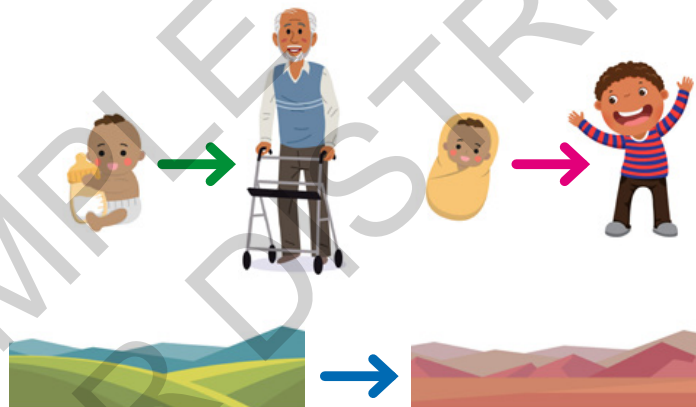
- b How many days in one month? _____
- c How many days in one year? _____

3 Match.

a 10 years

b 100 years

c 1,000 years



millennium

decade

century

- 4 How many:
- a years in 2 decades? _____ b years in 3 centuries? _____
- c years in 2 millennia? _____ d decades in 1 century? _____
- e decades in 3 centuries? _____ f centuries in 1 millennium? _____
- g centuries in 3 millennium? _____

Mastery Checklist

- I can: ☐ remember the months of the year in order and how many days they have
☐ use a yearly or monthly calendar to find dates
☐ explore amounts of time

Checkpoint 4

1 Make the number sentence true.

a $48 > \underline{\hspace{2cm}}$

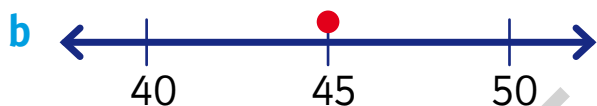
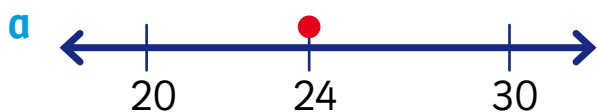
b $205 < \underline{\hspace{2cm}}$

c $391 > \underline{\hspace{2cm}}$

p 49

2 Circle the nearest ten.

p 50



3 What is the nearest 100?

p 51

a $458 \underline{\hspace{2cm}}$

b $548 \underline{\hspace{2cm}}$

4 Round to ten to estimate:

p 52

a $319 + 495 = \underline{\hspace{2cm}}$

b $282 - 131 = \underline{\hspace{2cm}}$

5 a
$$\begin{array}{r} 57 \\ + 22 \\ \hline \end{array}$$

b
$$\begin{array}{r} 31 \\ + 37 \\ \hline \end{array}$$

p 54

6 a
$$\begin{array}{r} 174 \\ + 213 \\ \hline \end{array}$$

b
$$\begin{array}{r} 383 \\ + 215 \\ \hline \end{array}$$

p 56

7 a
$$\begin{array}{r} 84 \\ - 32 \\ \hline \end{array}$$

b
$$\begin{array}{r} 99 \\ - 45 \\ \hline \end{array}$$

p 59

8 a
$$\begin{array}{r} 826 \\ - 405 \\ \hline \end{array}$$

b
$$\begin{array}{r} 739 \\ - 512 \\ \hline \end{array}$$

p 62

9 Share equally.

p 64

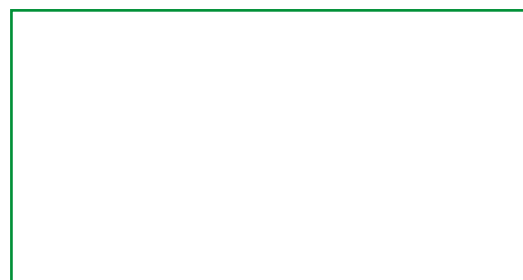


$$\boxed{} \div \boxed{} = \boxed{}$$

p 65

10 15 apples divided into 3 rows.

a Draw an array.



b Write the equation.

$$\boxed{} \boxed{} \boxed{} = \boxed{}$$

11 Complete the facts.

p 67

a Double 9 is $\underline{\hspace{2cm}}$.

b $2 \times \underline{\hspace{2cm}} = 18$

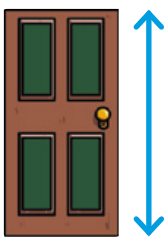
c Half of $\underline{\hspace{2cm}}$ is 9.

d $18 \div 2 = \underline{\hspace{2cm}}$

Checkpoint 4

12 How would you make \$73? p 69

13 Match. p 74



shorter than
1 metre

longer than
1 metre

14 Measure the lines to the nearest cm. p 76



15 What is the difference between the two lengths above? p 74

16 Tina makes 48 pies and Tom makes 16 sandwiches. How many items for the picnic in total? p 79

=

17 Ben has 298 shells. p 79

He gets rid of 174 shells.
How many left?



18 Write the problem-solving steps in order: check, plan, read, work. p 82

- 1
- 2
- 3
- 4

19 What is the time? p 87

a



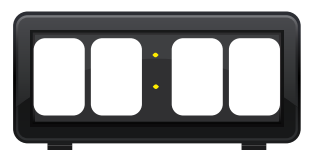
:

b



:

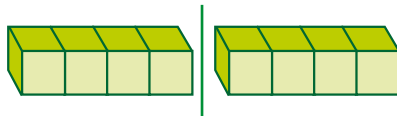
20 Show 3 minutes to 4. p 88



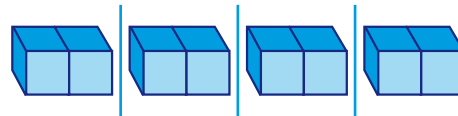
Whole



Halves



Quarters



1 a How many blocks in this rod? _____

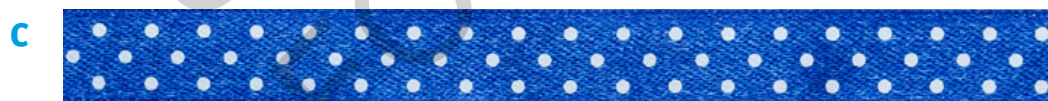


b Draw a line to cut this rod in half. How many blocks in each half? _____

c Draw lines to cut each half in half.

d What fraction did you cut the rod into? _____

2 Draw lines to cut these lengths into quarters.



1 Circle one eighth of each group.

a



$\frac{1}{8}$ of 8 is

b



$\frac{1}{8}$ of 16 is

c



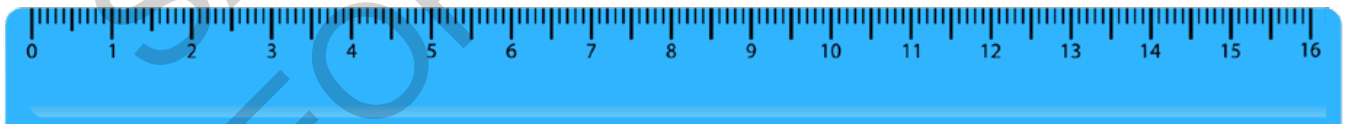
$\frac{1}{8}$ of is

d



$\frac{1}{8}$ of is

2 Cut this length into half. Then cut each half into half.
Then cut each part into half again.



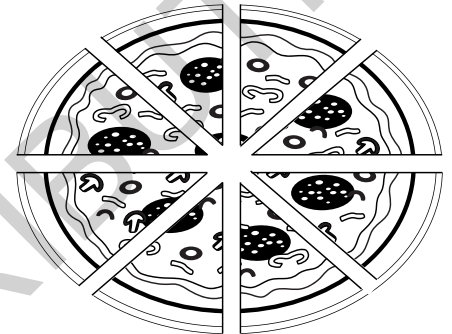
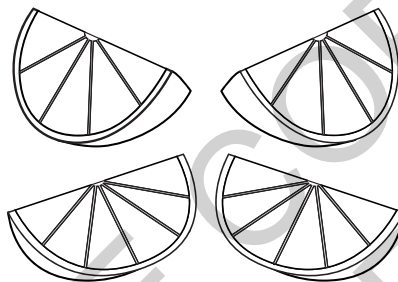
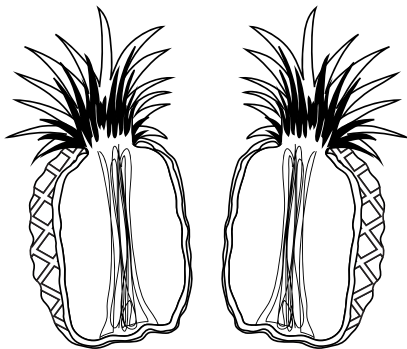
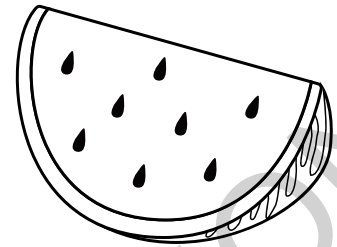
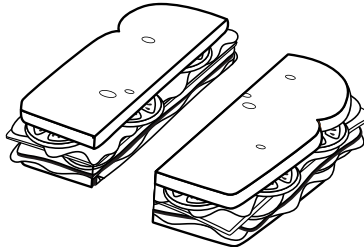
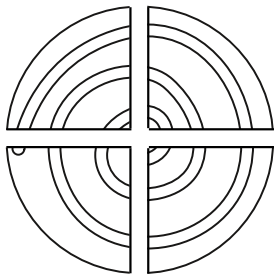
3 What fraction is the length cut into?

Challenge! Colour each one $\frac{1}{2}$ blue, $\frac{1}{4}$ green, $\frac{1}{8}$ red.
Make each one different.

Halves, quarters and eighths

TERM 3
Week 1

1 Colour **blue** for halves, **red** for quarters and **green** for eighths.



2 Match.

$\frac{1}{4}$

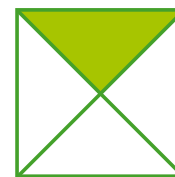
$\frac{1}{2}$

$\frac{1}{8}$

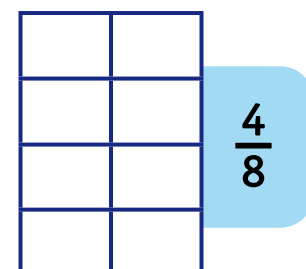
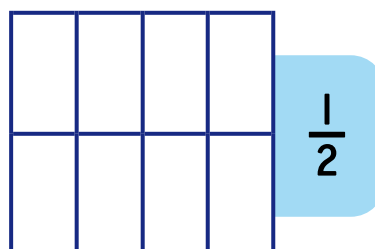
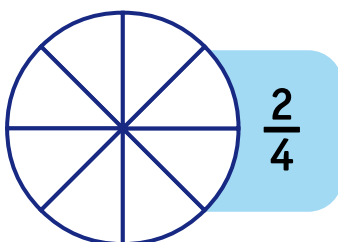
one quarter

one eighth

one half



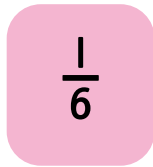
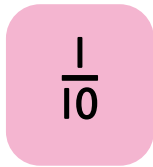
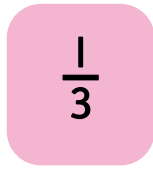
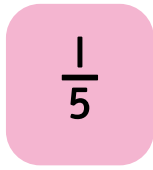
3 Colour.



Thirds, fifths, sixths and tenths

TERM 3
Week 1

1 Match.

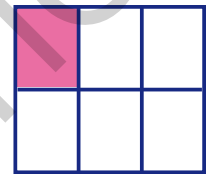
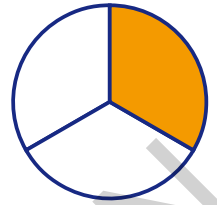


one fifth

one sixth

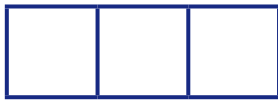
one tenth

one third

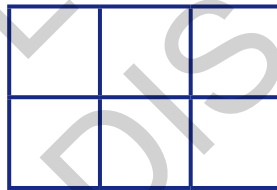


2 Colour.

a $\frac{2}{3}$



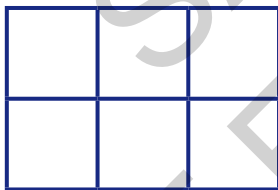
b $\frac{2}{6}$



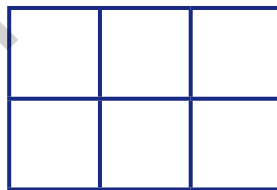
c $\frac{2}{5}$



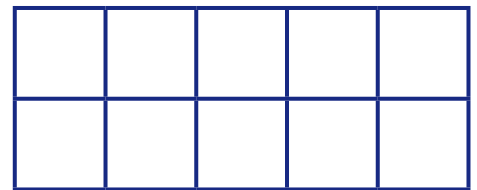
d $\frac{4}{6}$



e $\frac{5}{6}$

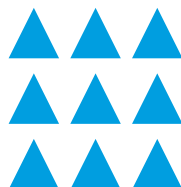


f $\frac{4}{10}$

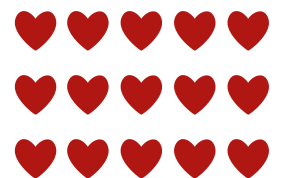


3 Circle.

a $\frac{1}{3}$ of 9 = _____



b $\frac{1}{5}$ of 15 = _____



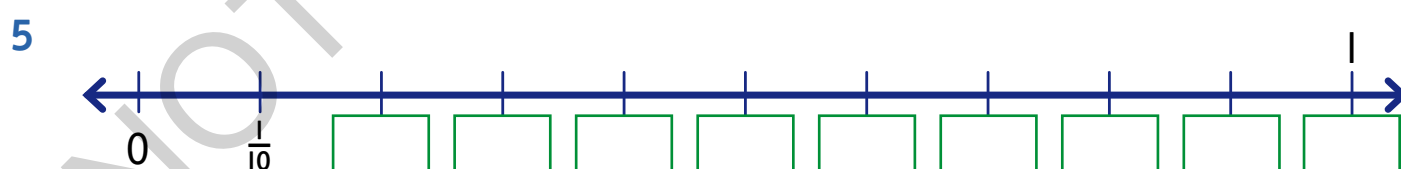
c $\frac{1}{6}$ of 12 = _____



d $\frac{1}{10}$ of 20 = _____



Fill in the fractions up to 1 whole on each number line.

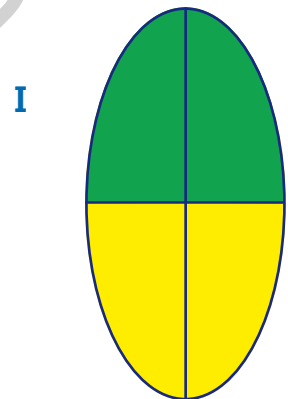
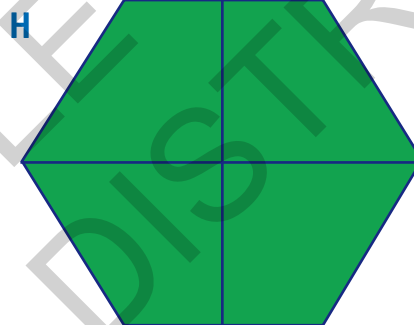
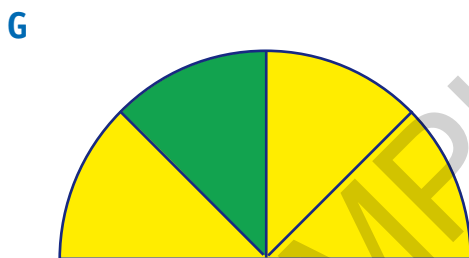
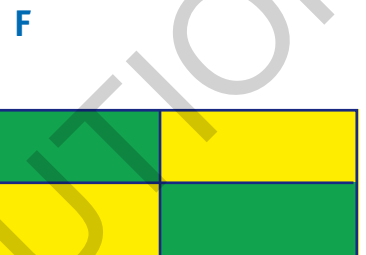
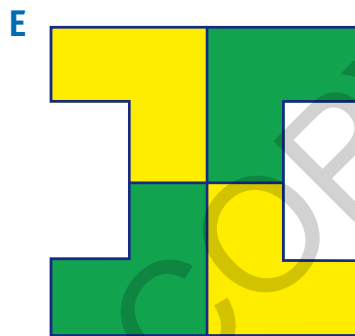
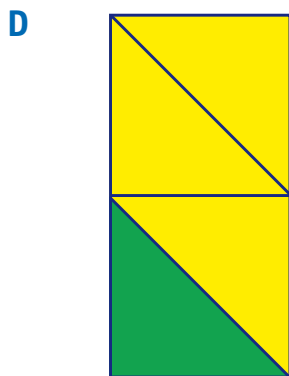
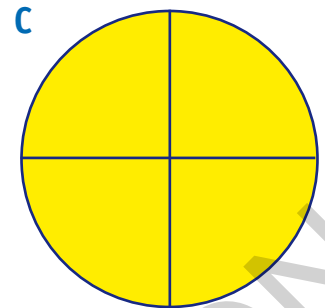
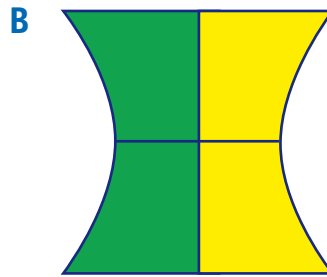
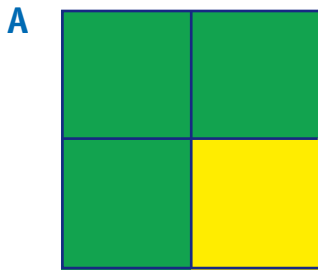


Mastery Checklist

- I can:
- ☐ represent halves, quarters and eighths in lengths, groups, shapes and objects
 - ☐ represent thirds, fifths, sixths and tenths in shapes, groups and on number lines
 - ☐ read and write fractions in words and fraction notation

Halves, quarters and wholes

TERM 3
Week 2



- 1 Which shapes are one quarter green? D and
- 2 Which shapes are one half yellow? _____
- 3 Which shapes show one whole? _____
- 4 Which shapes are one half green? _____
- 5 In F what fraction is yellow? _____
- 6 In G what fraction is green? _____
- 7 How many quarters are in one whole? _____
- 8 How many halves are in one whole? _____
- 9 How many quarters are in one half? _____
- 10 How many halves are in 2 wholes? _____
3 wholes? _____

$\frac{1}{2}$ ← one
← out of
2 ← two equal parts



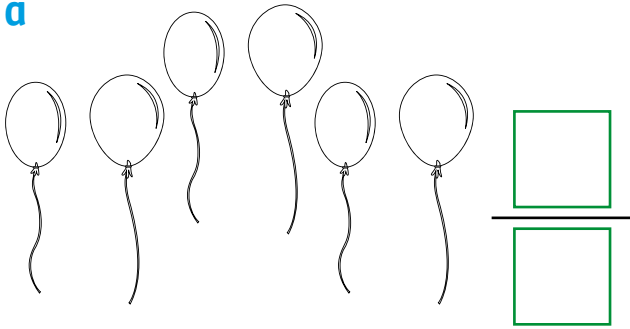
Quarters
mean 4
equal parts.

Equivalent halves

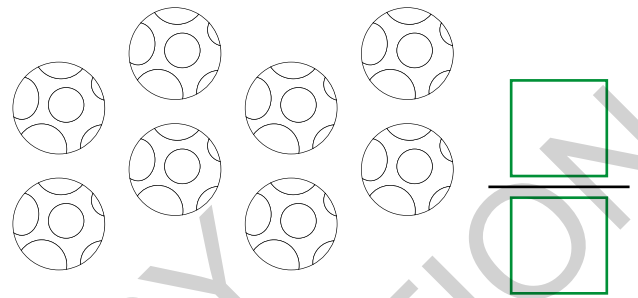
TERM 3
Week 2

1 Colour half of each group. Write the fraction.

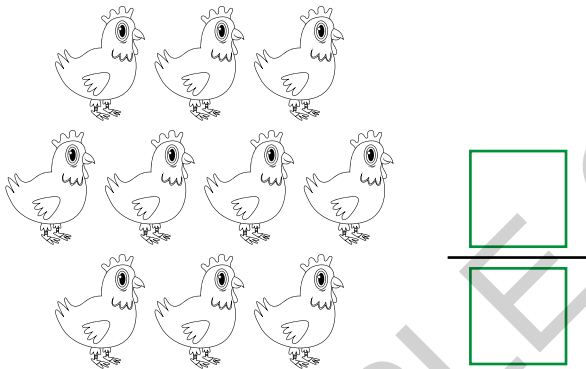
a



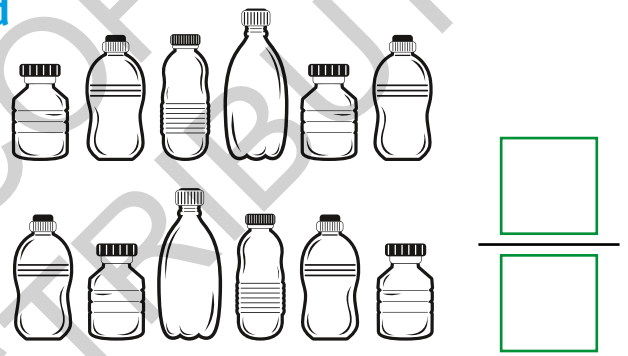
b



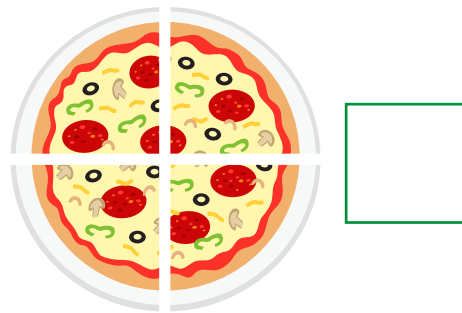
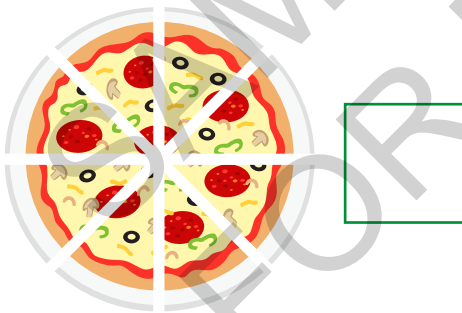
c



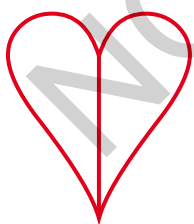
d



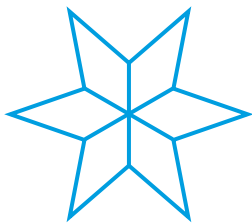
2 How many pieces in half of each pizza?



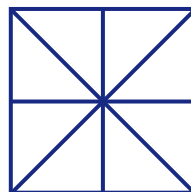
3 Colour half of each. Write the fractions.



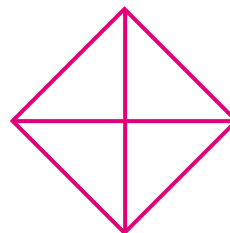
$\frac{\square}{2}$



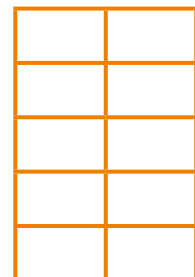
$\frac{\square}{6}$



$\frac{\square}{8}$



$\frac{\square}{4}$



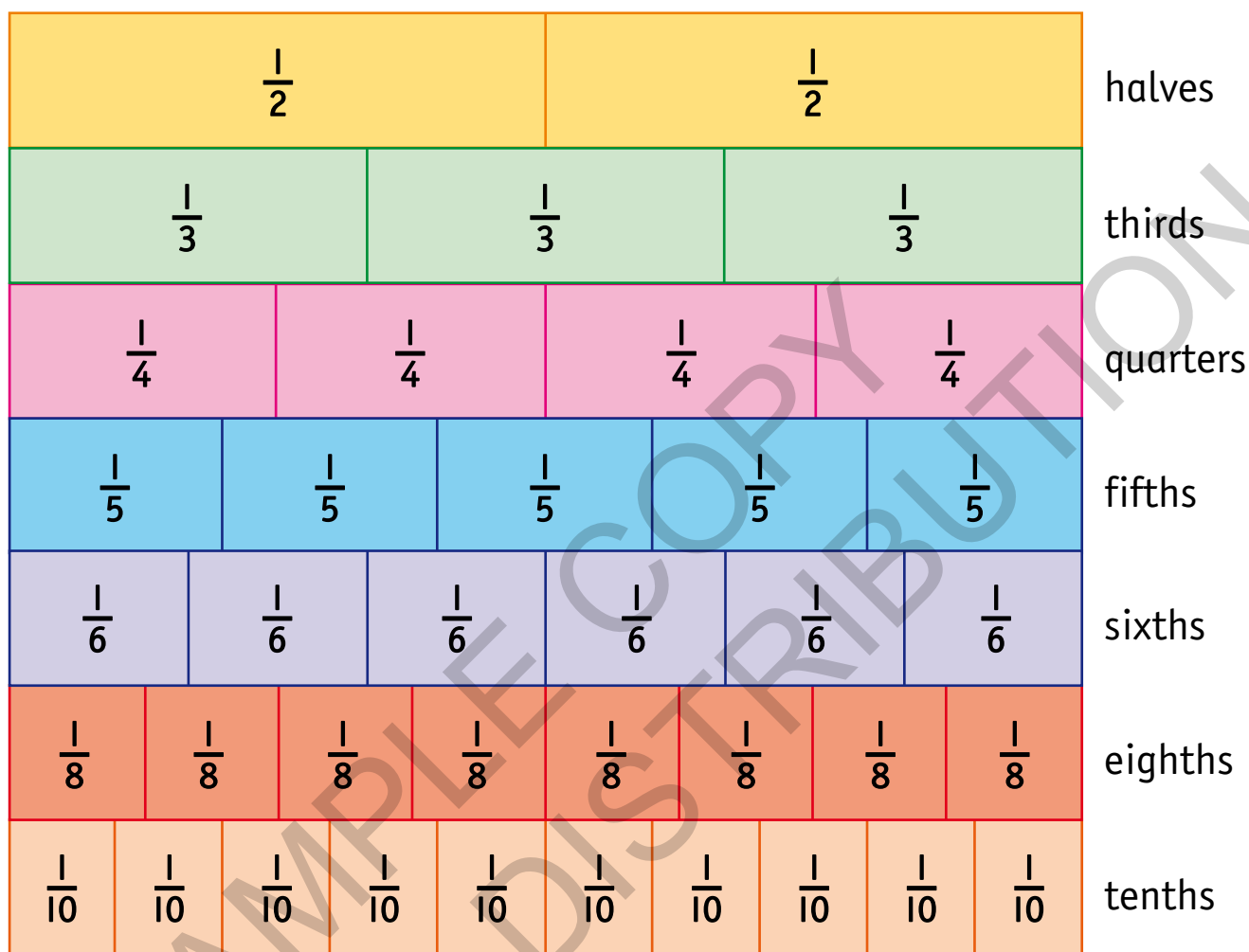
$\frac{\square}{10}$

Equivalent fractions

equivalent
equal to, the same as

$$\frac{1}{2} = \frac{2}{4}$$

TERM 3
Week 2



1 Cross out the wrong word:

Equivalent fractions are the same a different size.

2 Write a fraction that is equivalent to:

a $\frac{1}{3} = \frac{\boxed{}}{\boxed{}}$

b $\frac{1}{4} = \frac{\boxed{}}{\boxed{}}$

c $\frac{1}{5} = \frac{\boxed{}}{\boxed{}}$

d $\frac{4}{6} = \frac{\boxed{}}{\boxed{}}$

e $\frac{6}{8} = \frac{\boxed{}}{\boxed{}}$

f $\frac{6}{10} = \frac{\boxed{}}{\boxed{}}$

g $\frac{2}{5} = \frac{\boxed{}}{\boxed{}}$

h $\frac{5}{10} = \frac{\boxed{}}{\boxed{}}$

i $\frac{2}{2} = \frac{\boxed{}}{\boxed{}}$

Compare unit fractions

TERM 3
Week 2

Use the fraction wall on page 101 to compare sizes of fractions.

1 Write the correct symbol in the box: < or >.

a $\frac{1}{3}$ $\frac{1}{2}$

b $\frac{1}{4}$ $\frac{1}{6}$

c $\frac{1}{5}$ $\frac{1}{8}$

> greater than

$100 > 1$

< less than

$2 < 20$

d Cross out the wrong word:

The smaller fraction has the smaller larger number on the bottom.

2 Write the correct symbol in the box: < or >.

a $\frac{1}{10}$ $\frac{1}{8}$

b $\frac{1}{12}$ $\frac{1}{10}$

c $\frac{1}{12}$ $\frac{1}{20}$

d $\frac{1}{9}$ $\frac{1}{6}$

3 Write the fractions on the number line. Write < or > in the box.

a $\frac{1}{10}$ $\frac{1}{8}$

b $\frac{1}{4}$ $\frac{1}{5}$

c $\frac{1}{2}$ $\frac{1}{4}$

d $\frac{1}{10}$ $\frac{1}{2}$



e Cross out the wrong number: The smaller fraction is closer to 0 1.

4 a Write the fractions in order from smallest to largest:

$\frac{1}{2}, \frac{1}{6}, \frac{1}{4}, \frac{1}{10}, \frac{1}{3}, \frac{1}{5}, \frac{1}{8}$

smallest

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largest

5 Write a unit fraction that is:

a larger than $\frac{1}{2}$

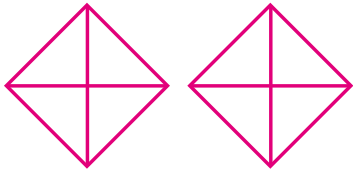
b smaller than $\frac{1}{8}$

Compare fractions

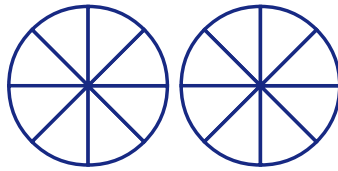
TERM 3
Week 2

1 Colour the fractions. Tick the larger one. Write < or > in the box.

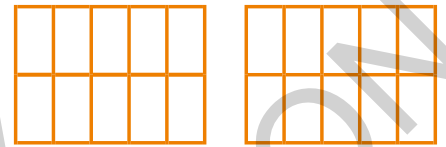
a $\frac{2}{4}$ $\frac{3}{4}$



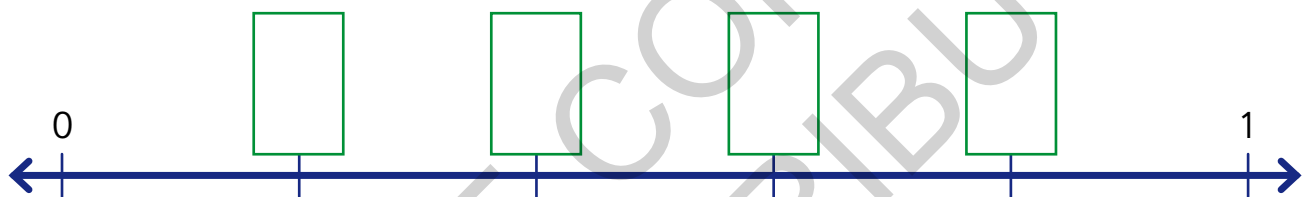
b $\frac{6}{8}$ $\frac{5}{8}$



c $\frac{5}{10}$ $\frac{3}{10}$



2 a Write the missing fractions.



b Which fraction is closest to 1? _____

3 Write from smallest to largest.

a $\frac{1}{5}$ $\frac{4}{5}$ $\frac{4}{5}$ $\frac{2}{5}$ _____

b $\frac{7}{8}$ $\frac{2}{8}$ $\frac{5}{8}$ $\frac{1}{8}$ _____

4 True or False? Write T or F.

a $\frac{5}{8} > \frac{3}{8}$ _____

b $\frac{2}{10} > \frac{7}{10}$ _____

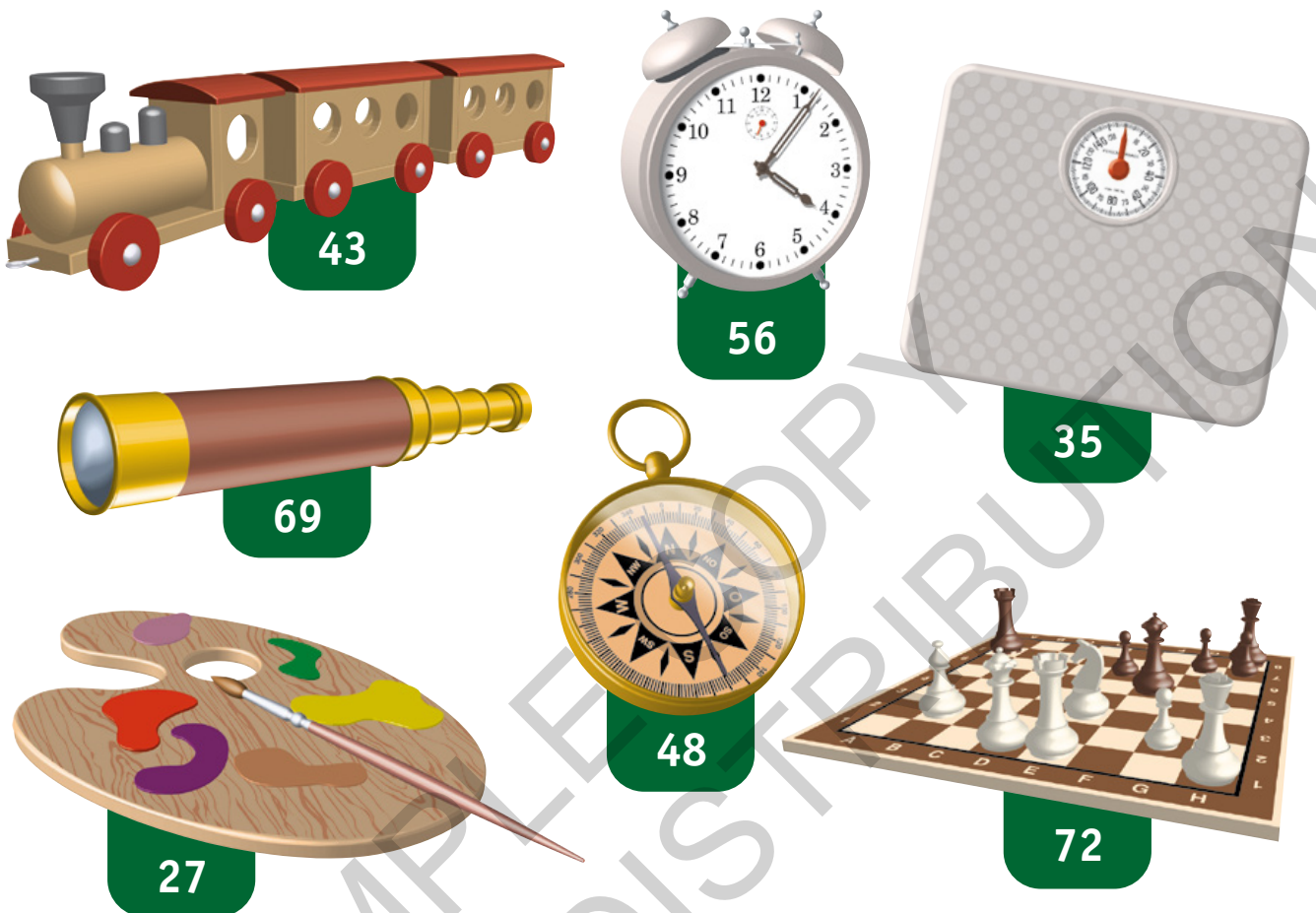
c $\frac{4}{6} = \frac{4}{8}$ _____

Challenge!

Write three fractions that are greater than $\frac{2}{5}$ but less than $\frac{5}{5}$.

Mastery Checklist

- I can:
- ☐ identify wholes, halves and quarters in shapes
 - ☐ identify equivalent fractions using a fraction wall, groups and shapes
 - ☐ compare fractions by size using a fraction wall, number lines and shapes
 - ☐ consider the numbers on top and bottom when comparing fractions



A gift shop owner counted all the items in the shop.

1 Which item was there: **a** most of? _____ **b** least of? _____

2 Add to find the total.

a trains + clocks = _____ + _____ = _____

b paints + chess sets = _____ + _____ = _____

c scales + trains = _____ + _____ = _____

d telescopes + scales = _____ + _____ = _____

e compasses + trains = _____ + _____ = _____

f paints + telescopes = _____ + _____ = _____

3 Which two items:

a add to 125? _____

b total 141? _____

TERM 3
Week 3

$$\begin{array}{r} \square \\ 37 \\ + 27 \\ \hline \end{array}$$

b

$$\begin{array}{r} \square \\ 24 \\ + 18 \\ \hline \end{array}$$

c

$$\begin{array}{r} \square \\ 38 \\ + 49 \\ \hline \end{array}$$

d

$$\begin{array}{r} \square \\ 44 \\ + 36 \\ \hline \end{array}$$

$$\begin{array}{r} \square \\ e \quad 59 \\ + \quad 37 \\ \hline \end{array}$$

$$\begin{array}{r} \square \\ 48 \\ + 26 \\ \hline \end{array}$$

Tens	Ones
+1	7
+	5
1	2

The **ones** add to 12.
Keep the **ones**
digit (2).
Trade the 10 up
a column as +1.

q $75 + 15 =$

Tens	Ones
+	

b $44 + 37 =$

Tens	Ones
+	

c $68 + 22 =$

Tens	Ones

+

d $63 + 19 =$

Tens	Ones
+	

e $51 + 29 =$

Tens	Ones
+	

f $48 + 43 =$

Tens	Ones
+	

q $46 + 19 =$

Tens	Ones
+	

h $27 + 56 =$

Tens	Ones
+	

a

$$\begin{array}{r} \boxed{1} \\ 274 \\ + 583 \\ \hline \end{array}$$

b

$$\begin{array}{r} \square \\ 752 \\ + 186 \\ \hline \end{array}$$

c

$$\begin{array}{r} \square \\ 826 \\ + 159 \\ \hline \end{array}$$

d

$$\begin{array}{r} \square \\ 674 \\ + 218 \\ \hline \end{array}$$

Subtraction with trading

To trade down
a ten
 $56 = 50 + 6$
 $= 40 + 16$

TERM 3
Week 3

1 Trade down 1 ten.

a $46 = 40 + 6$
 $= 30 + \underline{\hspace{2cm}}$

b $72 = 70 + 2$
 $= 60 + \underline{\hspace{2cm}}$

c $85 = 80 + 5$
 $= \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

d $27 = 20 + \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

e $51 = 50 + \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

f $34 = 30 + \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

g $48 = 40 + \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

h $93 = 90 + \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

i $61 = 60 + \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

j $36 = 30 + \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

k $69 = 60 + \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

l $87 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

m $45 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

n $78 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$



We use trading tens for subtraction.

2

Tens	Ones
2	12
3	2
- 1	5

Tens	Ones
4	15
5	5
- 2	8

Tens	Ones
5	13
6	3
- 4	9

Tens	Ones
5	12
6	2
- 2	7
3	5

I can't take
7 from 2,
so I traded
down a ten.

Tens	Ones
6	14
7	4
- 5	5

Tens	Ones
3	17
4	7
- 1	8

Tens	Ones
7	18
8	8
- 3	9

Tens	Ones
6	7
- 4	9

Tens	Ones
3	6
- 1	8

Tens	Ones
8	5
- 5	6

Tens	Ones
5	3
- 2	8

Tens	Ones
7	4
- 4	7

Tens	Ones
4	8
- 1	9

Tens	Ones
9	2
- 3	9

Tens	Ones
7	0
- 2	6

1 a $\begin{array}{r} 612 \\ 72 \\ - 18 \\ \hline \end{array}$ b $\begin{array}{r} 53 \\ - 29 \\ \hline \end{array}$ c $\begin{array}{r} 80 \\ - 64 \\ \hline \end{array}$ d $\begin{array}{r} 65 \\ - 27 \\ \hline \end{array}$ e $\begin{array}{r} 44 \\ - 16 \\ \hline \end{array}$

2



A
157 passengers



B
139 passengers



C
164 passengers



D
191 passengers



E
145 passengers

What is the difference in number of passengers between plane **D** and each other plane?

A $\begin{array}{r} 191 \\ - 157 \\ \hline \end{array}$

B $\begin{array}{r} 191 \\ - \\ \hline \end{array}$

C $\begin{array}{r} \\ - \\ \hline \end{array}$

E $\begin{array}{r} \\ - \\ \hline \end{array}$

3 Which two planes have a difference of:
a 19? _____ **b** 18? _____ **c** 12? _____ **d** 25? _____

4 Which two planes have:
a the greatest difference? _____ **b** the least difference? _____

5 These are subtraction squares. Subtract down each column. Subtract across each row. Subtract your answers to find the number in the green square.

a

62	14	
28	12	

b

73	35	
25	19	

c

58	23	
19	15	

d

90	35	
59	24	

- 6 **a** There are 172 children in Year 4. 81 are boys.
How many girls? _____
- b** There are 281 apples.
How many are red, if 137 are green? _____
- c** _____ - 148 = 275
- d** 563 - _____ = 228



Work out the answers to complete the crossnumber puzzle.

1 $\begin{array}{r} 24 \\ - 13 \\ \hline \end{array}$

2 $\begin{array}{r} 64 \\ - 47 \\ \hline \end{array}$

3 $\begin{array}{r} 94 \\ - 19 \\ \hline \end{array}$

4 $\begin{array}{r} 82 \\ - 24 \\ \hline \end{array}$

5 $\begin{array}{r} 70 \\ - 47 \\ \hline \end{array}$

6 $\begin{array}{r} 98 \\ - 14 \\ \hline \end{array}$

7 $\begin{array}{r} 90 \\ - 41 \\ \hline \end{array}$

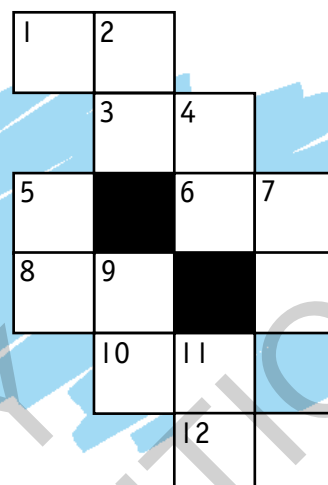
8 $\begin{array}{r} 72 \\ - 36 \\ \hline \end{array}$

9 $\begin{array}{r} 81 \\ - 18 \\ \hline \end{array}$

10 $\begin{array}{r} 63 \\ - 28 \\ \hline \end{array}$

11 $\begin{array}{r} 95 \\ - 41 \\ \hline \end{array}$

12 $\begin{array}{r} 75 \\ - 29 \\ \hline \end{array}$



13 Choose + or – to make each equation true.

a $87 \square 45 = 42$

b $458 \square 126 = 332$

c $658 \square 226 = 432$

d $87 \square 45 = 132$

14 Write in the missing digits.

a $\begin{array}{r} 6 \square 3 \\ + \quad 64 \\ \hline 687 \end{array}$

b $\begin{array}{r} 58 \square \\ + \quad 3 \square 5 \\ \hline 909 \end{array}$

c $\begin{array}{r} \square \square 83 \\ + \quad 5 \square 9 \\ \hline 123 \square \end{array}$

d $\begin{array}{r} 6 \square 7 \\ + \quad 85 \square \\ \hline 1539 \end{array}$

Trial and error

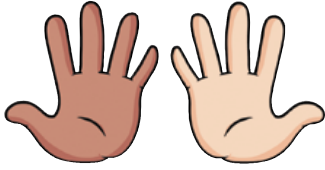
Two three-digit numbers have a difference of 628. The first number has 7 in the ones place. The second number has 2 in the hundreds place. What are the numbers?

Mastery Checklist

- I can: ☐ add two- and three-digit numbers with trading in written algorithms
☐ subtract two- and three-digit numbers with trading in written algorithms

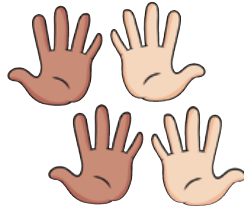
1 How many fingers?

a



$$2 \times 5 = \square$$

b



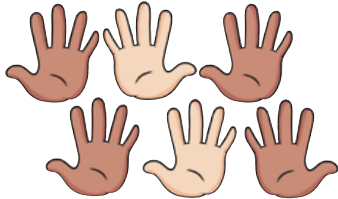
$$4 \times 5 = \square$$

c



$$1 \times 5 = \square$$

d



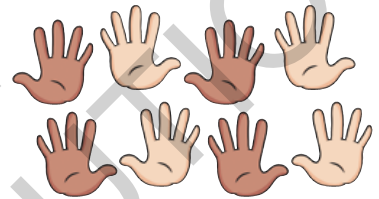
$$6 \times 5 = \square$$

e



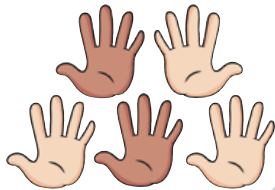
$$3 \times 5 = \square$$

f



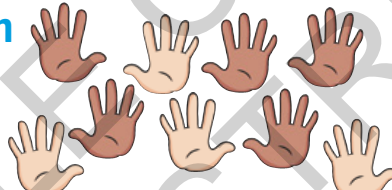
$$8 \times 5 = \square$$

g



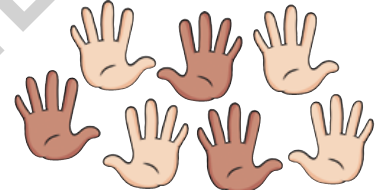
$$5 \times 5 = \square$$

h



$$9 \times 5 = \square$$

i



$$7 \times 5 = \square$$

2 Count by fives.



5

10

$$10 \times 5 = \square$$

3

a $1 \times \square = 5$

$5 \div 5 = \square$

b $\square \times 5 = 10$

$10 \div \square = 2$

c $5 \times 5 = \square$

$\square \div 5 = 5$

d $4 \times 5 = \square$

$20 \div \square = 4$

e $\square \times 3 = 15$

$\square \div 3 = 5$

f $6 \times \square = 30$

$30 \div 5 = \square$

g $7 \times 5 = \square$

$\square \div 5 = 7$

h $\square \times 5 = 40$

$40 \div 5 = \square$

i $9 \times \square = 45$

$45 \div \square = 9$

j $10 \times \square = 50$

$\square \div 5 = 10$

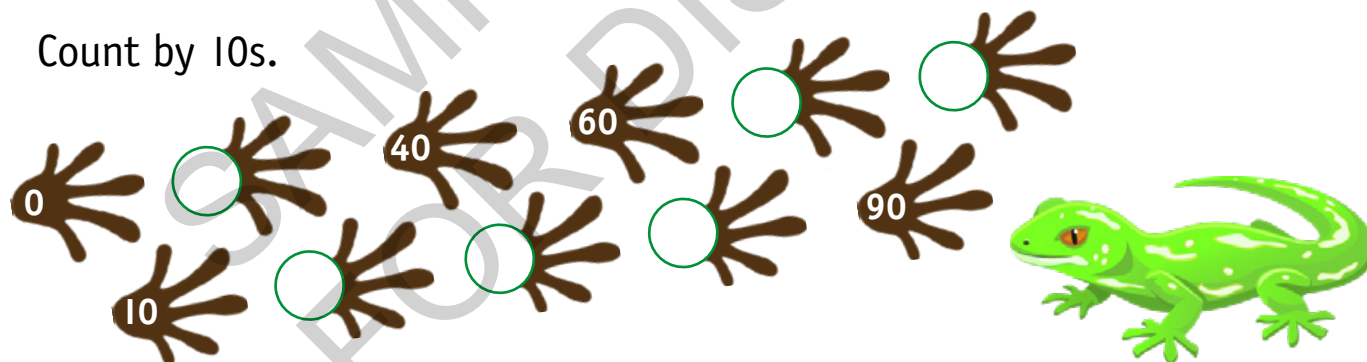
- 1 One child has 2 feet with 5 toes on each foot. How many toes on 1 child?
2 feet $\times$ 5 toes = _____ toes altogether



2

	Number of toes		Number of toes
1 child		7 children	
2 children		8 children	
3 children		9 children	
4 children		10 children	
5 children		11 children	
6 children		12 children	

- 3 Count by 10s.

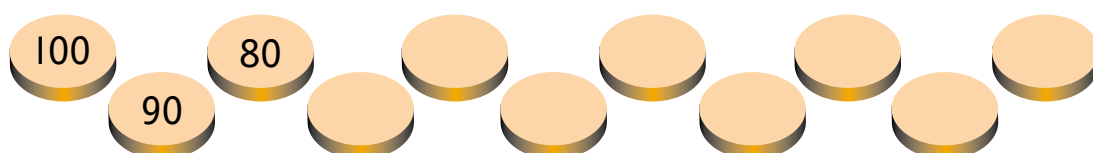


- 4 Tick the correct number sentences.

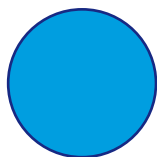
- a** $30 \div 10 = 3$ **b** $60 \div 10 = 9$ **c** $100 \div 10 = 10$
d $70 \div 10 = 7$ **e** $40 \div 10 = 4$ **f** $80 \div 10 = 6$
g $10 \div 10 = 10$ **h** $90 \div 10 = 9$ **i** $120 \div 10 = 12$
j $50 \div 10 = 5$ **k** $110 \div 10 = 11$ **l** $20 \div 10 = 5$



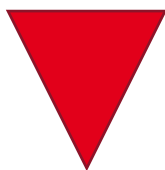
- 5 Count back.



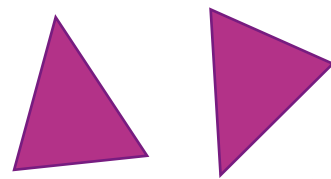
1 How many corners?



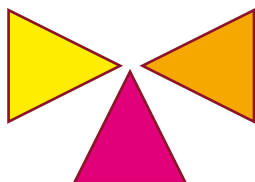
a $0 \times 3 = \square$



b $\square \times \square = \square$



c $\square \times \square = \square$



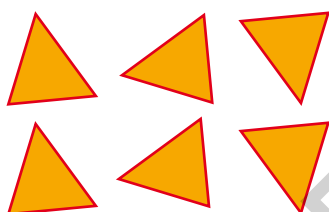
d $\square \times \square = \square$



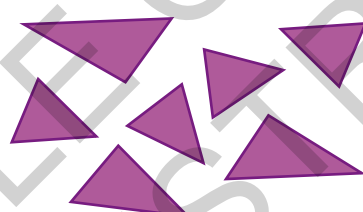
e $\square \times \square = \square$



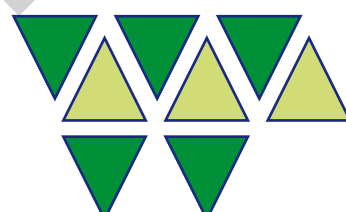
f $\square \times \square = \square$



g $\square \times \square = \square$



h $\square \times \square = \square$



i $\square \times \square = \square$



j $\square \times \square = \square$



k $\square \times \square = \square$



2 a $3 \div 3 = \underline{\quad}$

b $6 \div \underline{\quad} = 2$

c $\underline{\quad} \div 3 = 3$

d $12 \div \underline{\quad} = 4$

e $\underline{\quad} \div 3 = 5$

f $18 \div 3 = \underline{\quad}$

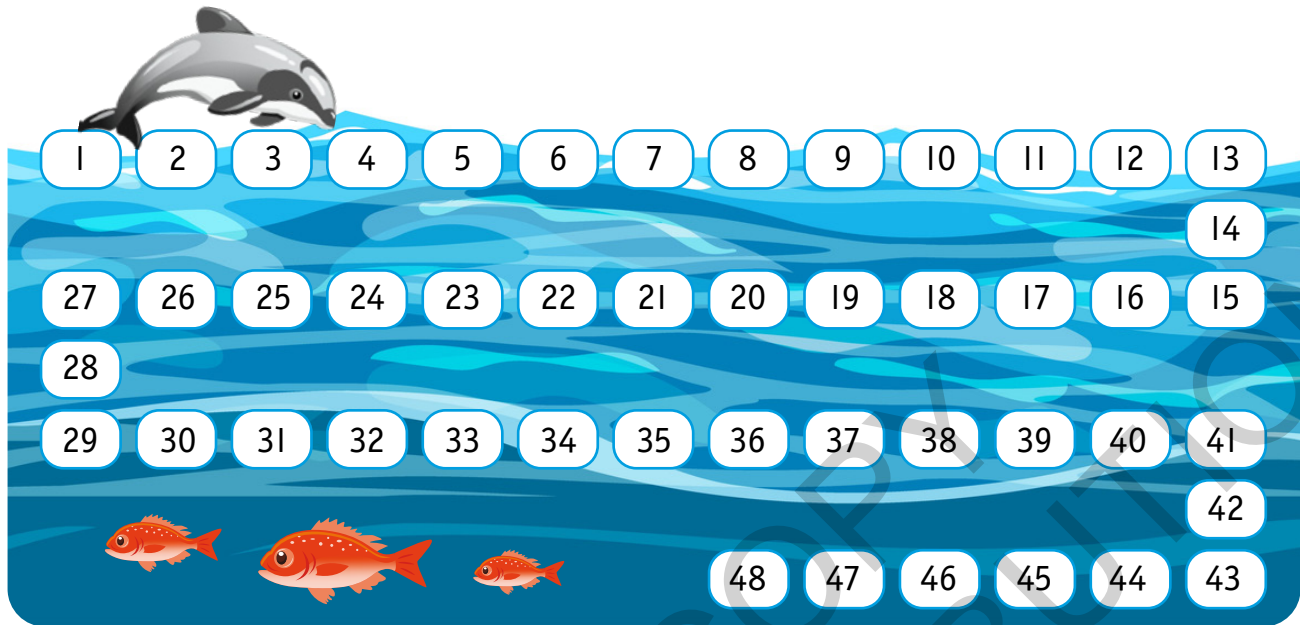
g $\underline{\quad} \div 3 = 7$

h $24 \div 3 = \underline{\quad}$

i $27 \div \underline{\quad} = 9$

3 Jump in threes.





Hector leaps 4 spaces each time he jumps from the water.

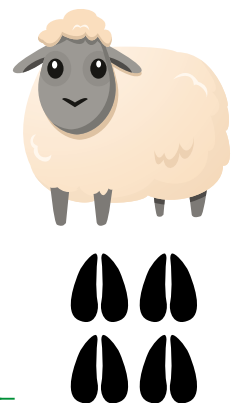
1 Colour the numbers he will land on.

2 How far did he go in:

- a 0 jumps? _____ b 1 jump? _____ c 2 jumps? _____ d 3 jumps? _____
e 4 jumps? _____ f 5 jumps? _____ g 6 jumps? _____ h 7 jumps? _____
i 8 jumps? _____ j 9 jumps? _____ k 10 jumps? _____

3 A sheep has 4 feet. How many feet on:

- a 1 sheep $1 \times 4 =$ _____ b 2 sheep $2 \times 4 =$ _____
c 3 sheep $3 \times 4 =$ _____ d 4 sheep $4 \times 4 =$ _____
e 5 sheep $5 \times 4 =$ _____ f 6 sheep $6 \times 4 =$ _____
g 7 sheep $7 \times 4 =$ _____ h 8 sheep $8 \times 4 =$ _____
i 9 sheep $9 \times 4 =$ _____ j 10 sheep $10 \times 4 =$ _____



- 4 a $4 \div 4 =$
d $16 \div 4 =$
g $28 \div 4 =$
j $40 \div 4 =$

- b $8 \div 4 =$
e $20 \div 4 =$
h $32 \div 4 =$
k $44 \div 4 =$

- c $12 \div 4 =$
f $24 \div 4 =$
i $36 \div 4 =$
l $48 \div 4 =$



1 How many legs on:

- a 1 spider? _____ b 6 spiders? _____
c 4 spiders? _____ d 9 spiders? _____
e 2 spiders? _____ f 10 spiders? _____
g 3 spiders? _____ h 8 spiders? _____
i 7 spiders? _____ j 5 spiders? _____
k 0 spiders? _____ l 11 spiders? _____

2 Complete.



3

×	6	10	2	8	4	0	7	3	9	1	12	5
8												

4 a $1 \times \square = 8$

$8 \div 8 = \square$

d $4 \times 8 = \square$

$32 \div \square = 4$

g $7 \times 8 = \square$

$\square \div 8 = 7$

j $10 \times \square = 80$

$80 \div 8 = \square$

b $\square \times 8 = 16$

$16 \div \square = 2$

e $\square \times 8 = 40$

$\square \div 8 = 5$

h $\square \times 8 = 64$

$64 \div 8 = \square$

k $\square \times 8 = 88$

$88 \div 8 = \square$

c $3 \times 8 = \square$

$\square \div 8 = 3$

f $6 \times \square = 48$

$48 \div 8 = \square$

i $9 \times \square = 72$

$72 \div \square = 9$

l $12 \times 8 = \square$

$96 \div 8 = \square$



Mastery Checklist

I can: ☐ count by 3, 4, 5, 8, 10

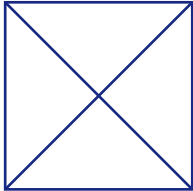
☐ remember multiplication and division facts for 3, 4, 5, 8, 10

Add fractions

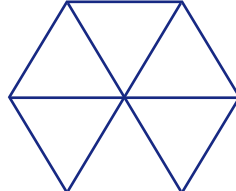
TERM 3
Week 5

1 Colour each fraction, then count to find the total.

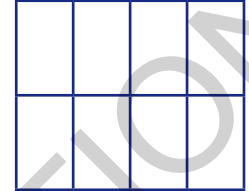
a $\frac{1}{4} + \frac{2}{4} = \frac{\boxed{}}{4}$



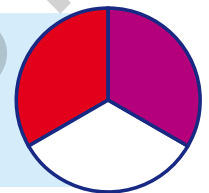
b $\frac{2}{6} + \frac{2}{6} = \frac{\boxed{}}{6}$



c $\frac{3}{8} + \frac{2}{8} = \frac{\boxed{}}{8}$



When we **add fractions** with the **same denominator**, the denominator stays the same. $\frac{1}{3} + \frac{1}{3} = \frac{2}{3}$
We only **add** the **numerators**.



2 a $\frac{2}{5} + \frac{2}{5} = \frac{\boxed{}}{\boxed{}}$

b $\frac{3}{9} + \frac{4}{9} = \frac{\boxed{}}{\boxed{}}$

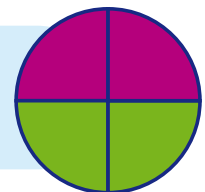
c $\frac{4}{10} + \frac{4}{10} = \frac{\boxed{}}{\boxed{}}$

d $\frac{1}{6} + \frac{4}{6} = \frac{\boxed{}}{\boxed{}}$

e $\frac{5}{12} + \frac{6}{12} = \frac{\boxed{}}{\boxed{}}$

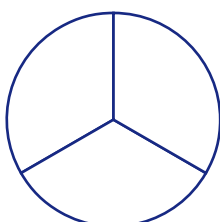
f $\frac{1}{4} + \frac{3}{4} = \frac{\boxed{}}{\boxed{}}$

If the **numerator** is the **same** as the **denominator** that makes **one whole**. $\frac{2}{4} + \frac{2}{4} = \frac{4}{4} = 1$

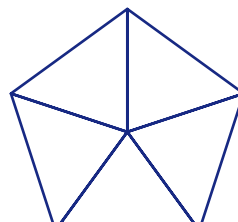


3 Colour the fraction and count to find the numerator that makes 1 whole.

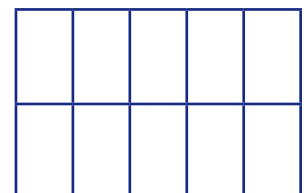
a $\frac{1}{3} + \frac{\boxed{}}{3} + \frac{\boxed{}}{3} = 1$



b $\frac{3}{5} + \frac{\boxed{}}{5} + \frac{\boxed{}}{5} = 1$



c $\frac{5}{10} + \frac{\boxed{}}{10} + \frac{\boxed{}}{10} = 1$



Subtract fractions

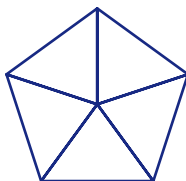
TERM 3
Week 5

1 Colour the first fraction, then cross out the second fraction.

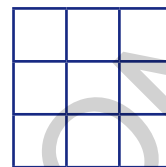
a $\frac{2}{3} - \frac{1}{3} = \frac{\square}{3}$



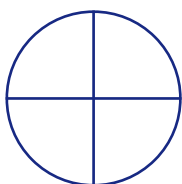
b $\frac{4}{5} - \frac{2}{5} = \frac{\square}{5}$



c $\frac{7}{9} - \frac{3}{9} = \frac{\square}{9}$



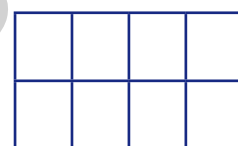
d $\frac{3}{4} - \frac{1}{4} = \frac{\square}{4}$



e $\frac{4}{6} - \frac{3}{6} = \frac{\square}{6}$



f $\frac{6}{8} - \frac{2}{8} = \frac{\square}{8}$

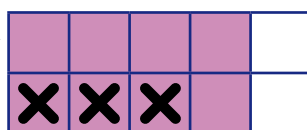


2 Write the number sentence for each subtraction.

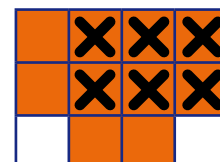
a $\frac{\square}{\square} - \frac{\square}{\square} = \frac{\square}{\square}$



b $\frac{\square}{\square} - \frac{\square}{\square} = \frac{\square}{\square}$

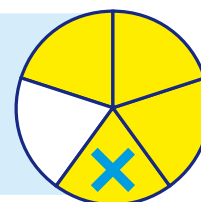


c $\frac{\square}{\square} - \frac{\square}{\square} = \frac{\square}{\square}$



When we **subtract fractions** with the **same denominator**, the denominator stays the same. We only **subtract the numerators**.

$\frac{4}{5} - \frac{1}{5} = \frac{3}{5}$



3 a $\frac{5}{5} - \frac{3}{5} = \frac{\square}{\square}$

b $\frac{8}{9} - \frac{5}{9} = \frac{\square}{\square}$

c $\frac{9}{10} - \frac{4}{10} = \frac{\square}{\square}$

d $\frac{5}{6} - \frac{4}{6} = \frac{\square}{\square}$

e $\frac{8}{12} - \frac{6}{12} = \frac{\square}{\square}$

f $\frac{7}{8} - \frac{2}{8} = \frac{\square}{\square}$

Add and subtract fractions

TERM 3
Week 5

1 Colour to add. Write the answer.

e.g. $\frac{2}{5} + \frac{1}{5} = \frac{3}{5}$



$\frac{3}{5}$

a $\frac{1}{4} + \frac{2}{4} =$



b $\frac{2}{6} + \frac{3}{6} =$



c $\frac{2}{8} + \frac{3}{8} =$



d $\frac{7}{10} + \frac{1}{10} =$



2 Add.

a $\frac{1}{6} + \frac{1}{6} =$

b $\frac{1}{10} + \frac{3}{10} =$

c $\frac{5}{12} + \frac{1}{12} =$

d $\frac{1}{8} + \frac{3}{8} =$

e $\frac{1}{8} + \frac{5}{8} =$

f $\frac{7}{8} + \frac{1}{8} =$

g $\frac{2}{12} + \frac{4}{12} =$

h $\frac{3}{6} + \frac{1}{6} =$

i $\frac{3}{10} + \frac{2}{10} =$

3 Cross out to subtract. Write the answer.

e.g. $\frac{3}{4} - \frac{1}{4} = \frac{2}{4}$



$\frac{2}{4}$

a $\frac{2}{4} - \frac{1}{4} =$



b $\frac{2}{3} - \frac{1}{3} =$



c $\frac{5}{8} - \frac{4}{8} =$



d $\frac{7}{10} - \frac{3}{10} =$



4 The denominators are the same, so subtract the numerators.

a $\frac{3}{4} - \frac{1}{4} =$

b $\frac{5}{6} - \frac{1}{6} =$

c $\frac{7}{8} - \frac{3}{8} =$

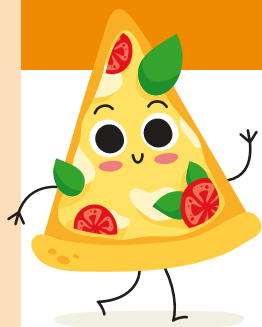
d $\frac{9}{10} - \frac{3}{10} =$

e $\frac{5}{8} - \frac{1}{8} =$

f $\frac{7}{10} - \frac{3}{10} =$

Mastery Checklist

I can: ☐ add and subtract fractions with the same denominator



Fraction calculations

Joe orders 2 pizzas. Each pizza is cut into 6 slices.

How many slices altogether?

Joe ate 4 slices. Maia and Taika both ate 3 slices.

What fraction of the 2 pizzas is left?



Step 1. Read the problem. Circle numbers and clue words.

Underline the questions.

Step 2. Plan the work. How many steps are there? Which operations?

Choose a strategy to use, such as a diagram, a list, an algorithm, a number line.

Step 3. Work the problem. Write the answer.

Step 4. Check the answer. Use a different strategy or inverse operations.

Plan:

Work:

Answer:

Check:

I can solve problems by:

☐ adding and subtracting fractions ☐ drawing a diagram

Checkpoint 5

Shade one bubble.



1 Which fraction is equivalent to $\frac{1}{2}$?

$$\frac{2}{8}$$

$$\frac{4}{8}$$

$$\frac{3}{8}$$

$$\frac{5}{8}$$

2 Which fraction is greater?

$$\frac{1}{3}$$

$$\frac{1}{6}$$

3 Which fraction is equal to $\frac{2}{5}$?

$$\frac{4}{10}$$

$$\frac{5}{10}$$

$$\frac{2}{10}$$

$$\frac{6}{10}$$

4

$$\frac{3}{8} + \frac{2}{8} = \boxed{}$$

5

a $57 + 28 = \boxed{}$

b $84 - 37 = \boxed{}$

Write an answer.

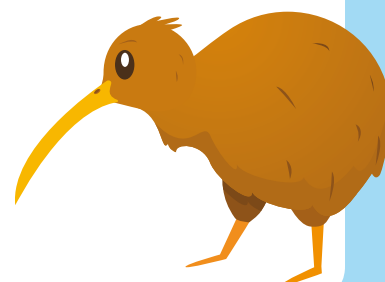
6 Add and subtract.

a 458

$+ 176$

b 158

$- 66$



Checkpoint 5

7 Write an equation to match the array.

Write an answer.



$$\square \div \square = \square$$

8 Complete.

a $8 \times 4 = \square$

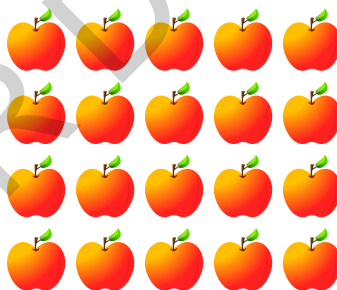
b $44 \div 11 = \square$

c $5 \times 8 = \square$

d $24 \div 3 = \square$

9 Which multiplication matches?

Shade one bubble.



$4 \times 5 = 20$

☐

$5 \times 5 = 25$

☐

$4 \times 4 = 16$

☐

$5 \times 4 = 9$

☐

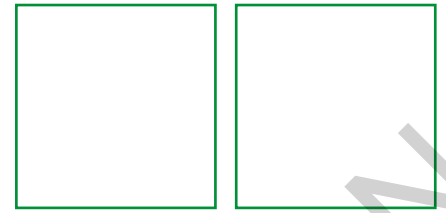
10 A teacher has 27 pencils.
She puts them into groups of 3.
How many groups are there?

Write an answer.

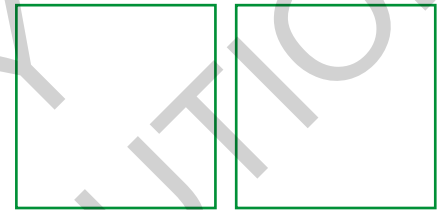
$$27 \div 3 = \square$$

1 Draw the next 2 terms.

a



b

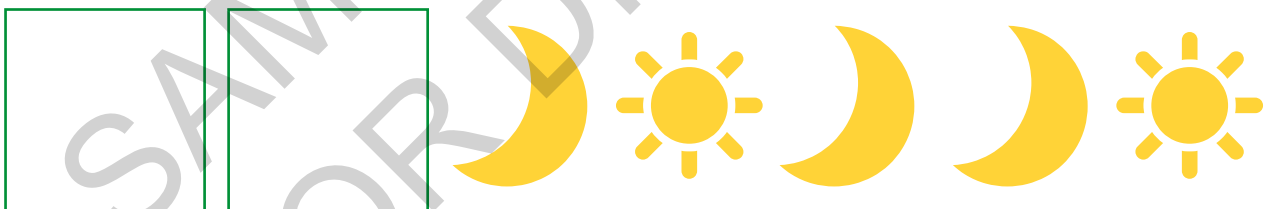


2 Draw the missing terms.

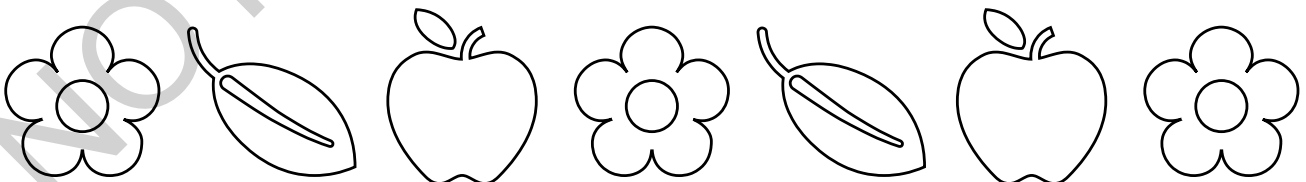
a



b



3 Colour the second and fifth terms green. Colour the other shapes to make a pattern.

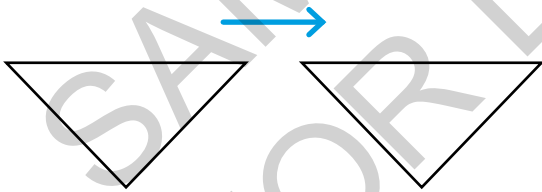
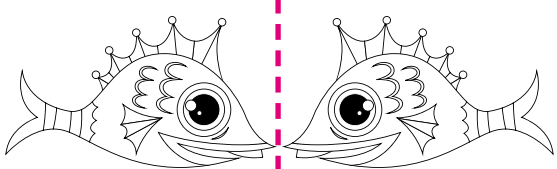
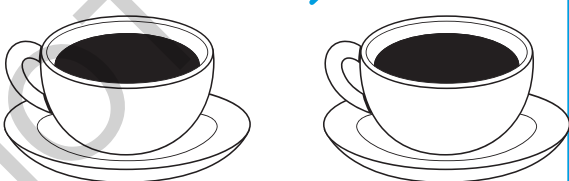
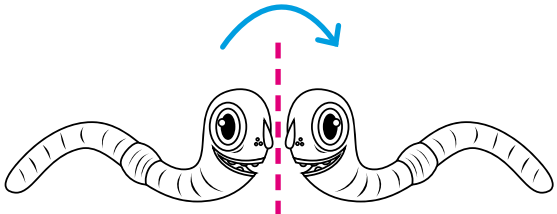
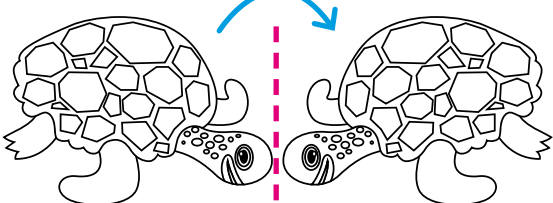
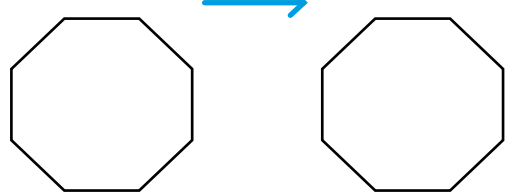


4 Draw and colour your own repeating pattern.

1 Circle each slide. Tick each flip.

a						
b						
c						
d						

2 Colour **red** slide, **yellow** flip.

1 Tick the shapes that show a quarter turn.

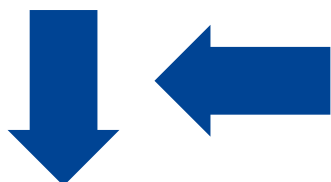
a



b



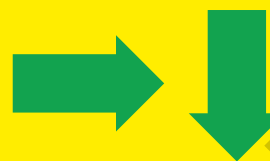
c



d



A quarter turn

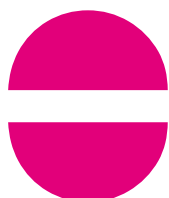


A half turn



2 Circle the shapes that show a half turn.

a



b



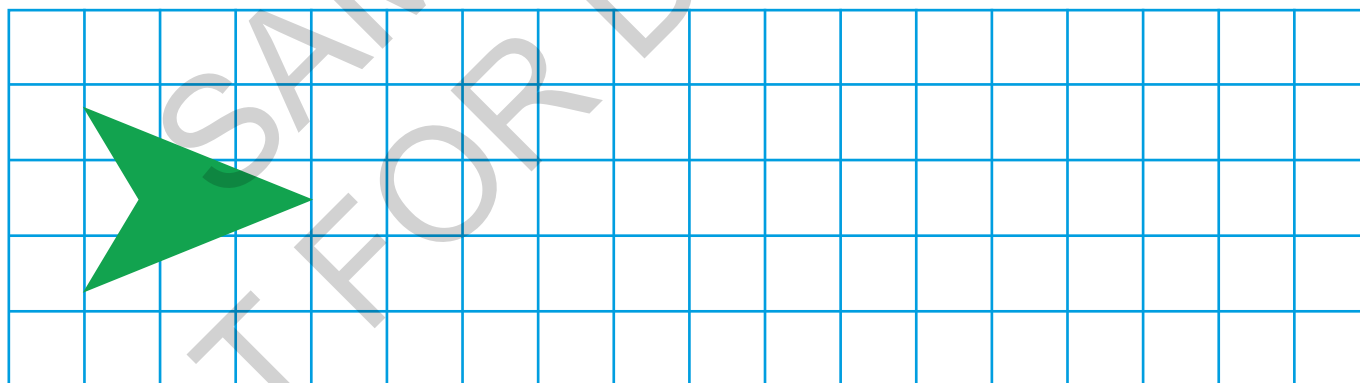
c



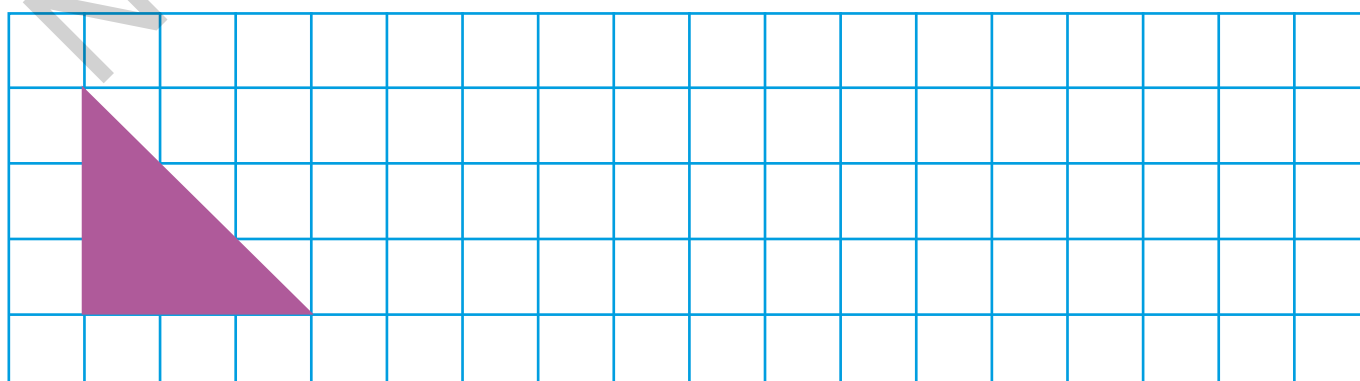
d



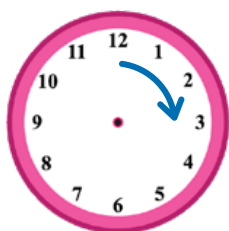
3 Draw this shape after a quarter turn and a half turn.



4 Draw this shape after a flip, a slide, a quarter turn and a half turn.



clockwise

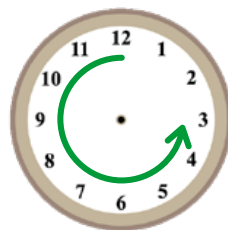


quarter turn

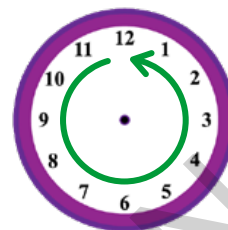


half turn

anticlockwise



three-quarter turn



full turn

- 1 These shapes were all turned clockwise.
Name the turn: quarter, half, three-quarter or full turn.



a



c



b



d

- 2 Draw what each shape looks like after the turn.

- a Quarter turn clockwise



- b Quarter turn anticlockwise



- c Three-quarter turn clockwise



- d Three-quarter turn anticlockwise



- 3 Two children describe the same turn.

Aroha: three-quarter turn clockwise. Tane: quarter turn anticlockwise.

Could they both be correct? _____ Explain your answer. _____

Mastery Checklist

I can: ☐ complete and create repeating patterns of flips, slides and turns

Challenge!

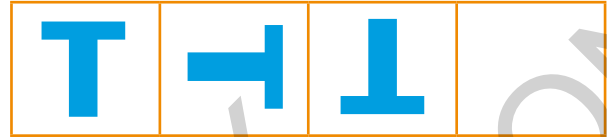
Rename the turns if all shapes in question 1 were moved anticlockwise.

Patterns

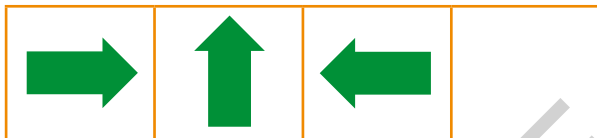
Identify the turns. Complete the patterns.



1 clockwise



2 anticlockwise



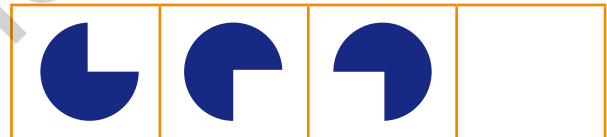
3 clockwise



4 anticlockwise



5 clockwise



6 anticlockwise

7 a Draw your own repeating pattern by turning a shape.

--	--	--	--

b Name the turns. _____

I can solve a problem by:

☐ identifying turns ☐ making a repeating pattern

Complete the equations to solve the problems.



- 1 Mango's swimming lesson took 2 hours.
It ended at 6 o'clock.
What time did it start?

$$\boxed{} \text{ o'clock} - \boxed{} \text{ hours} = \boxed{} \text{ o'clock}$$

- 2 Waldo had a party. Eight friends arrived early to help him set up the decorations. Another 17 friends came later. How many friends attended the party?



$$\boxed{} \text{ friends} + \boxed{} \text{ friends} = \boxed{} \text{ friends}$$

- 3 Ruby picks some apples.
She eats 12 and has 97 left.
How many apples did she pick?



$$\boxed{} + \boxed{} = \boxed{}$$



- 4 Doc went for a walk.
He walked for 3 hours.
He arrived home at 7:30.
What time did he leave?

$$\boxed{} + \boxed{} = \boxed{}$$

Draw a picture or write your own equations to solve these problems.

- 1 Doc has 24 less marbles than Dizzy. Ruby has 35 more marbles than Dizzy. If Ruby has 145 marbles, how many does Doc have?

Doc has marbles.



- 2 Ruby has three new ribbons. The red ribbon is 12 cm shorter than the pink. The pink ribbon is 30 cm shorter than the blue. The blue ribbon is 200 cm long. How long is the red ribbon?

The red ribbon is cm long.

- 3 Luca has \$18 less than Mia. Mia has \$25 more than Zara. Zara has \$63. How much money does Luca have?

Luca has \$.

- 4 The Blue team scored 18 fewer points than the Green team. The Red team scored 25 more points than the Blue team. The Red team scored 137 points. How many points did the Green team score?

They scored points.

- 1 Complete the table to find the answer.

Doc sees six tables with ten people sitting at each table.

How many people altogether? _____

Tables	1	2	3	4	5	6
People	10	20	30			

- 2 Mango is counting car tyres.

How many does she count on 7 cars? _____

Cars	1	2	3	4	5	6	7
Number of tyres	4	8					

- 3 Ruby walks two kilometres each afternoon.

How many kilometres does she walk in 5 days? _____

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Kilometres	2				

- 4 Waldo ate five cherries at every meal today.

How many cherries did he eat today? _____

Meal	Breakfast	Lunch	Dinner
Cherries			

- 5 Doc wants to read 6 books a week.

How many books will he read in 5 weeks? _____

1 Make a table to find the answer.

- a Mango has to do three maths problems every night for a whole week.
How many problems is that altogether? _____

- b Dizzy read for two hours each day.
How many hours did he spend reading over 9 days? _____

- c Ruby bought 11 stickers every day.
How many stickers did she buy over 5 days? _____

2 Write your own word problem using this table.

	1	2	3	4	5	6	7	8	9
	3	6	9	12	15	18	21	24	27

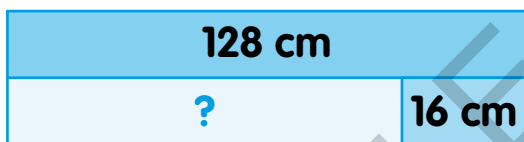
Use the bar model to write an equation and solve each problem.

- 1 Ruby bought some ribbon. She cut off 123 cm and still had 147 cm left. How much ribbon did she buy?



$$\square \square \square = \square$$

- 2 Dizzy is growing a sunflower. He gave it lots of water and it grew 16 cm. The sunflower is now 128 cm tall. How tall was it before Dizzy gave it water?



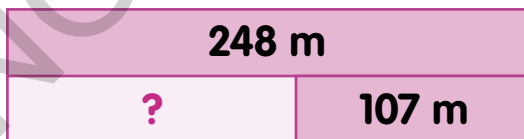
$$\square \square \square = \square$$

- 3 Mango is climbing a mountain. She has climbed 75 metres and has 64 m to go. How high is the mountain?



$$\square \square \square = \square$$

- 4 Doc is painting a fence. It is 248 metres long. He has already painted most of it and has 107 metres left to paint. How much of the fence has he already painted?



$$\square \square \square = \square$$

Mastery Checklist

- I can: ☐ solve problems by working backwards
☐ solve problems using a table
☐ solve problems using a bar model

Measuring area

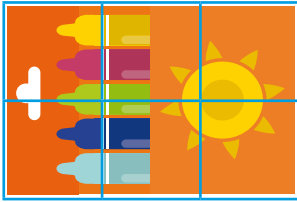
Area is the amount of surface a shape covers.

TERM 3
Week 8

 = square unit

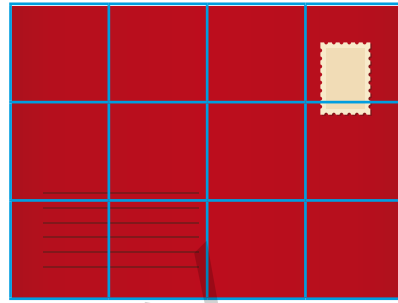
- 1 Count the squares to find the area of each item.

a



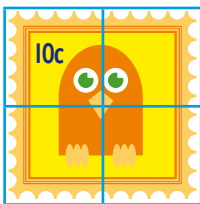
Area = _____ square units

b



Area = _____ square units

c



Area = _____ square units

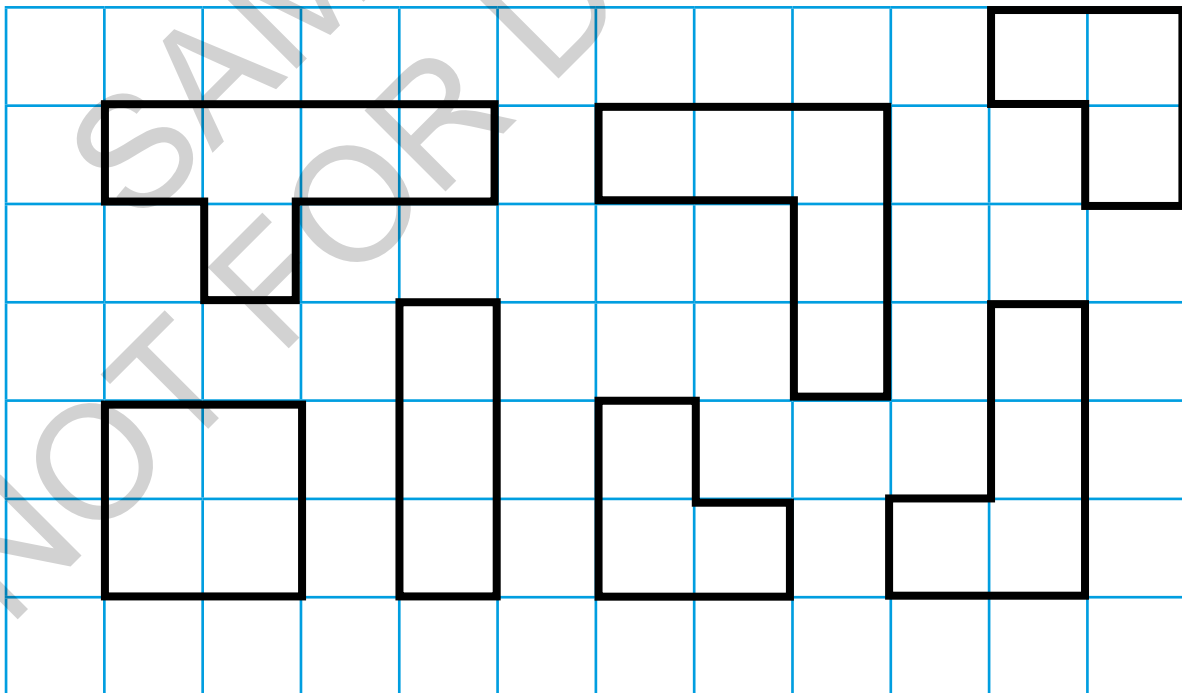
d



Area = _____ square units

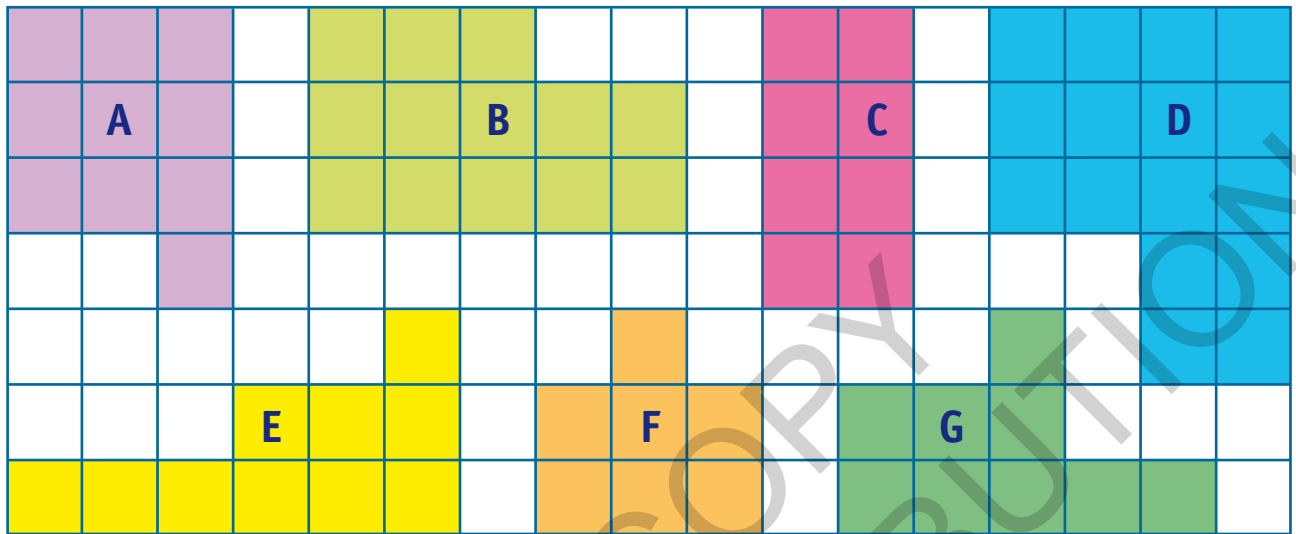
- 2 Colour the shapes that cover:

a 3 squares **green**. b 4 squares **blue**. c 5 squares **red**.



- 3 a Colour your own shape with an area of 6 square units.
b Draw a different shape with the same area.

1 What is the area of each shape in squares?



A B C D E F G

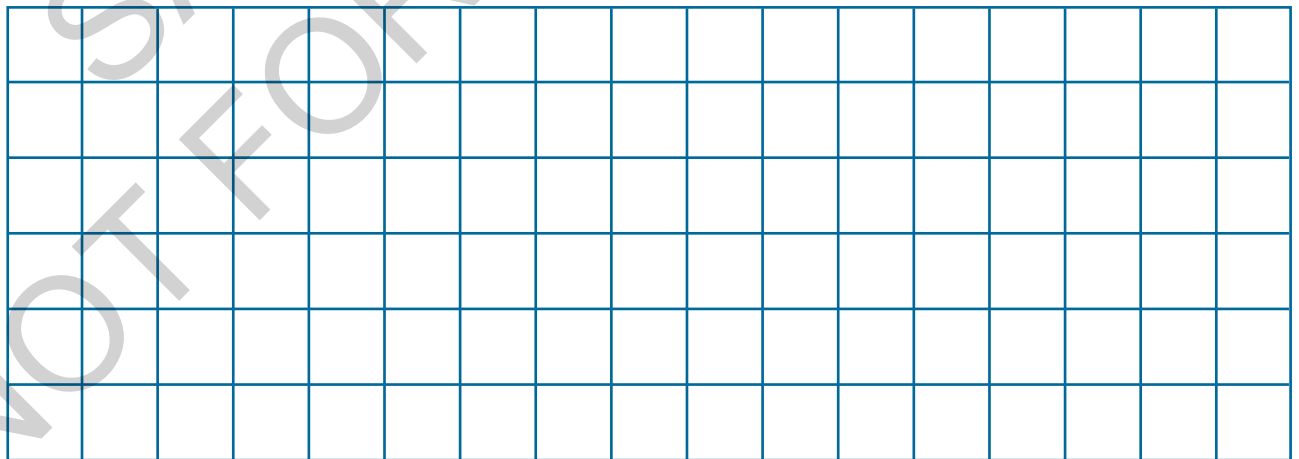
2 Which shape has:

a the smallest area? _____ b the largest area? _____

3 Which 2 shapes have the same area? _____

4 a Draw and colour 4 different shapes with an area of 12 squares:

A B C D



b Does each shape cover the same area? _____

Challenge! What is the area not coloured:

a in question 1? squares b in question 4? squares

1 How many blocks cover each book?



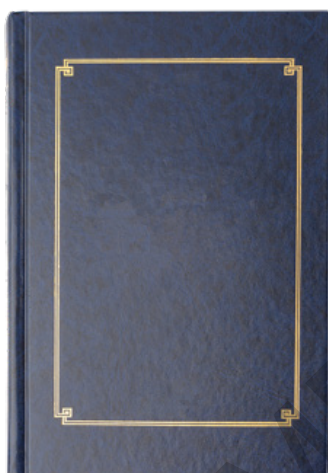
a



b



c



d



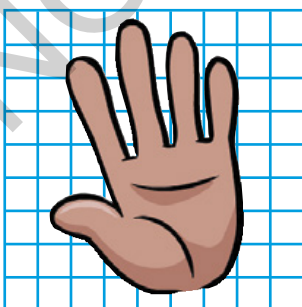
2 Which book has:

a the smallest area? _____ b the largest area? _____

3 **Estimate** Which covers a larger area, your hand or your foot? _____

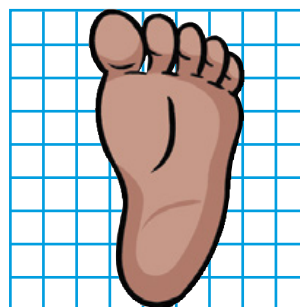
4 Use squared paper. Draw around your hand and your foot. Count the squares.

hand



Number of squares.

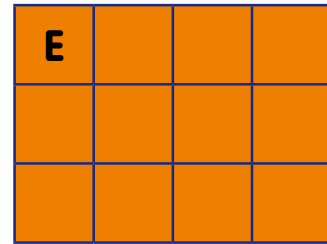
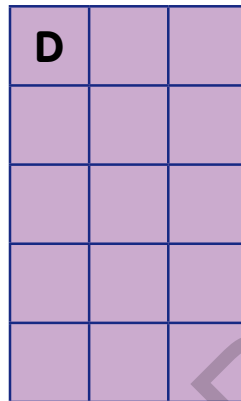
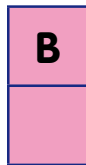
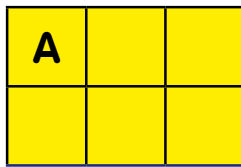
foot



Number of squares.



My _____ covers a larger area.



1 Complete the table.

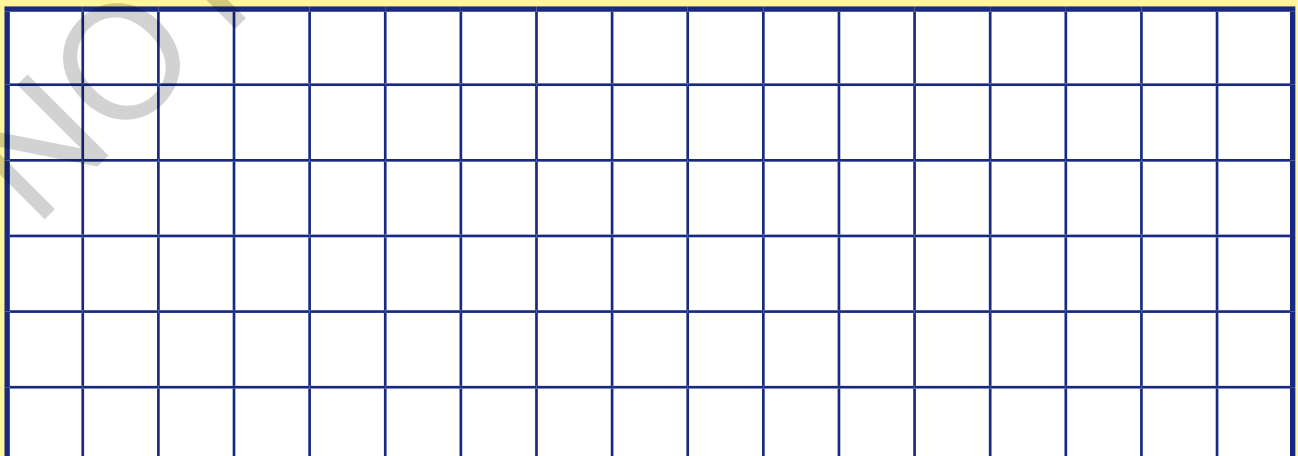
Rectangle	A	B	C	D	E	F
Area						

- Which rectangle has the largest area? _____
- Which rectangle has the smallest area? _____
- Which rectangles have the same area? _____ and _____
- Order the rectangles from smallest to largest. _____

Challenge!

Draw rectangle **G** with an area between **C** and **D**.

Draw rectangle **H** with an area larger than **A** but smaller than **D**.



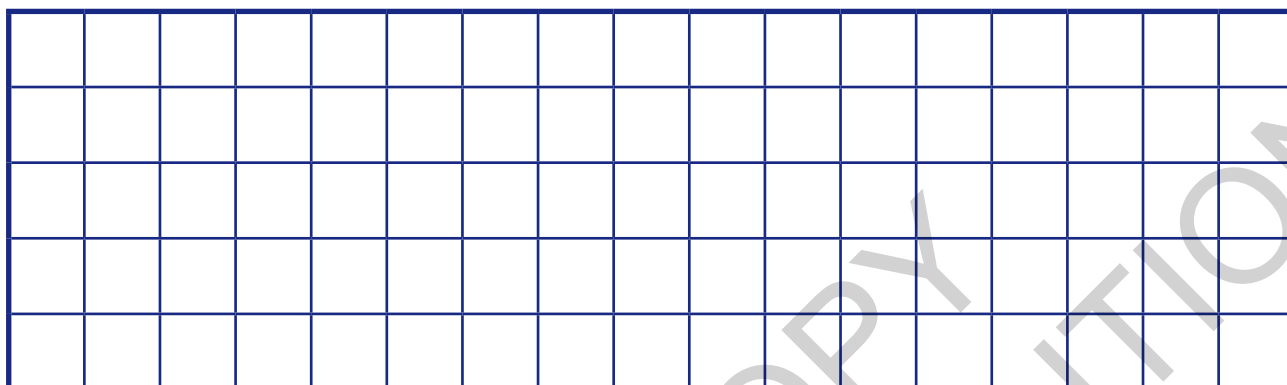
Area of rectangles

Area of a rectangle
= rows $\times$ columns
of square units.

TERM 3
Week 8

1 Draw one rectangle for each area.

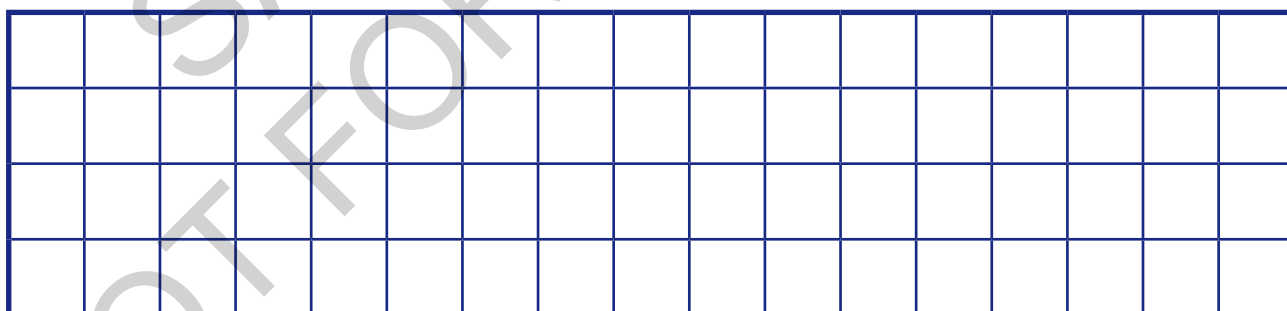
A 6 square units **B** 8 square units **C** 10 square units **D** 12 square units



2 Complete the table.

Rectangle	Rows	Columns	Area (square units)
A			
B			
C			
D			

3 A builder needs a floor with an area of 12 square units.
Draw three different rectangular floors.



4 Which of these rectangles has an area of 12 square units.

a 2 rows $\times$ 5 columns

b 3 rows $\times$ 4 columns

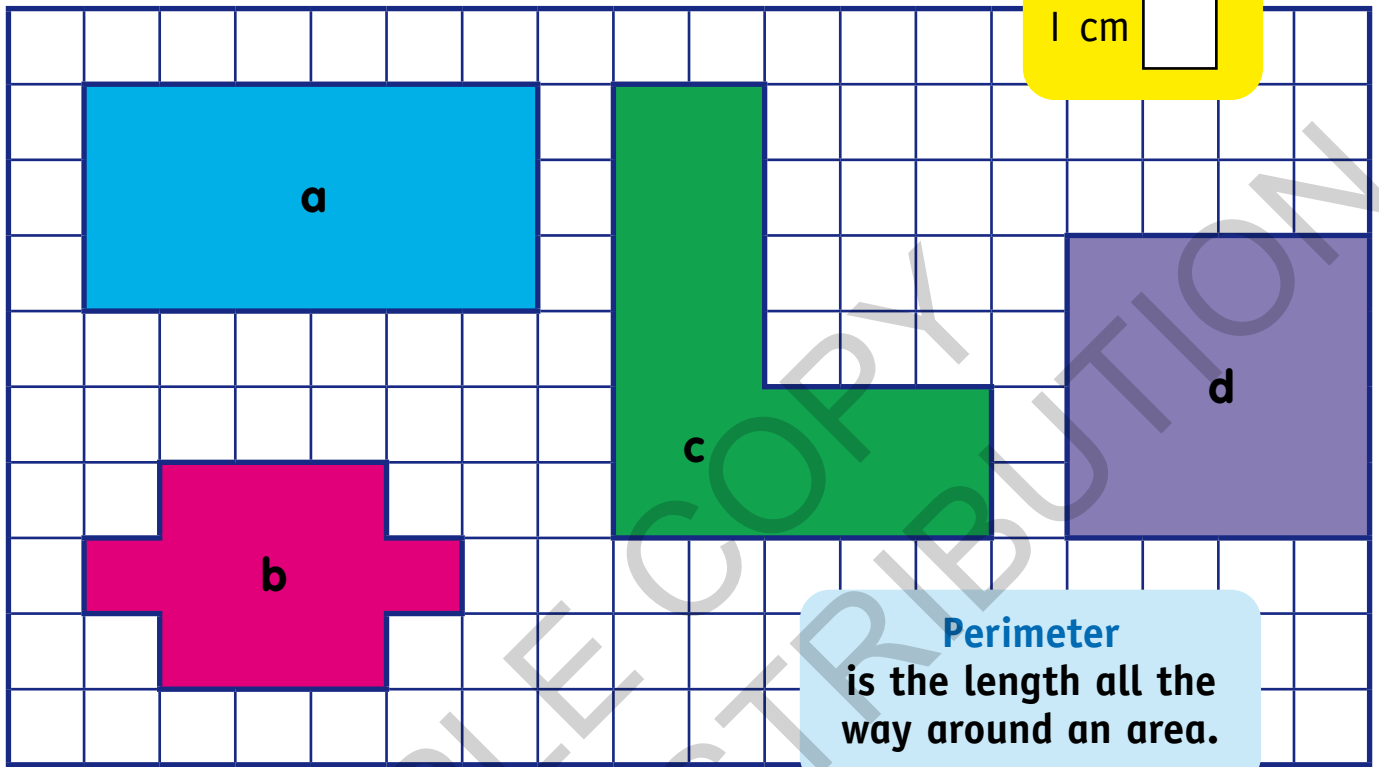
c 6 rows $\times$ 2 columns

d 5 rows $\times$ 3 columns

Mastery Checklist

- I can: ☐ count squares to measure area using blocks or a grid
☐ compare area measurements
☐ colour areas of a specific measurement

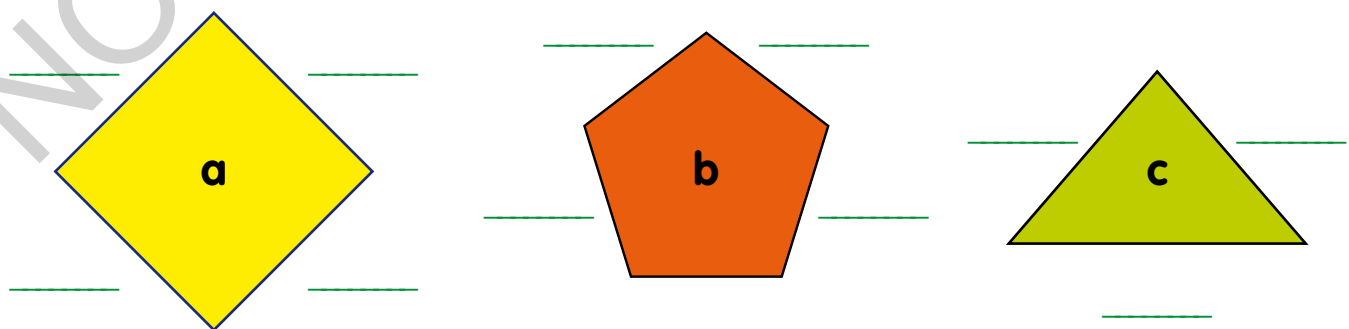
1 Write the length of each side of these shapes.



2 Add the side lengths to find the perimeter of each shape.

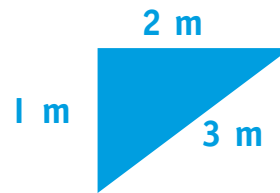
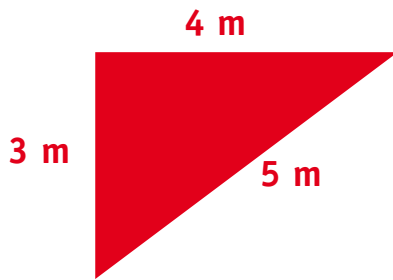
a _____
b _____
c _____
d _____

3 Use a ruler to measure all the side lengths in centimetres, then add them to calculate the perimeters of these shapes in centimetres.



a P = _____ b P = _____ c P = _____

1 Add the side lengths to find the perimeter of each triangle.

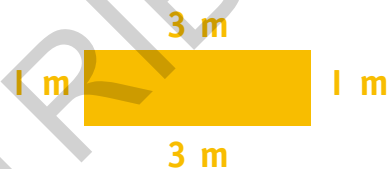
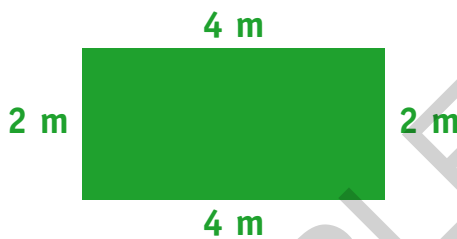


a $\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ m}$

b $\underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} = \underline{\hspace{1cm}} \text{ m}$

c The $\underline{\hspace{3cm}}$ triangle has the shorter perimeter.

2 Find the perimeter of each rectangle.

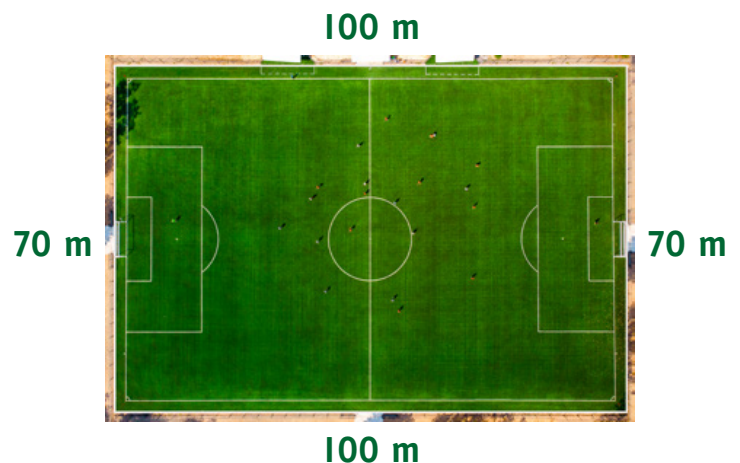
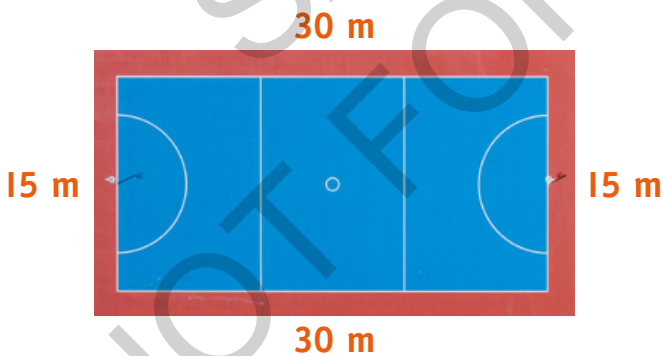


a Perimeter = $\underline{\hspace{1cm}}$ m

b Perimeter = $\underline{\hspace{1cm}}$ m

c The $\underline{\hspace{3cm}}$ rectangle has the longer perimeter.

3 Calculate the perimeters.



a Perimeter = $\underline{\hspace{1cm}}$ m

b Perimeter = $\underline{\hspace{1cm}}$ m

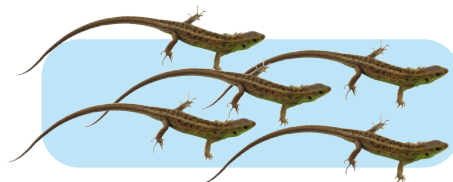
c The $\underline{\hspace{3cm}}$ has the longer perimeter.

Mastery Checklist I can: ☐ find side lengths using a 1 cm grid or a ruler
☐ add side lengths to calculate perimeters
☐ compare perimeters

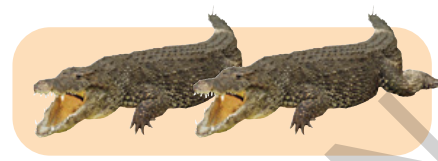
Sally's Zoo Animals



3 frogs



5 lizards



2 crocodiles

In Sally's Zoo each animal has its own yard. Frog needs 2 squares each. Lizards get a yard of 5 squares each. Each crocodile needs 8 squares. Draw Sally's Zoo.

Every square has 1 metre long sides. What is the perimeter of each yard?
 frogs _____ lizards _____ crocodiles _____
 What did you find out? _____

I can solve a problem by:

☐

measuring area and perimeter

☐

drawing a diagram

Checkpoint 6

- 1 Sort from smallest to largest.

p 102

$$\frac{1}{2} \quad \frac{1}{8} \quad \frac{3}{4} \quad \underline{\hspace{2cm}}$$

- 2 Write the missing fraction.

p 114

$$\frac{2}{8} + \frac{\boxed{}}{\boxed{}} = \frac{5}{8}$$

- 3 Add the fractions.

p 114

a $\frac{1}{4} + \frac{2}{4} = \frac{\boxed{}}{\boxed{}}$

b $\frac{3}{5} + \frac{1}{5} = \frac{\boxed{}}{\boxed{}}$



- 4 Circle the larger fraction.

p 102

a $\frac{1}{3} \quad \frac{1}{6}$

b $\frac{4}{8} \quad \frac{2}{8}$

- 5 Match.

p 104

$$32 + 26 =$$

$$48 + 31 =$$

$$22 + 21 =$$

$$56 + 43 =$$

$$79$$

$$43$$

$$58$$

$$99$$

- 6 a

$$\begin{array}{r} 174 \\ + 39 \\ \hline \end{array}$$

- b

$$\begin{array}{r} 383 \\ + 48 \\ \hline \end{array}$$

p 105

- 7 a

$$\begin{array}{r} 86 \\ - 4 \\ \hline \end{array}$$

- b

$$\begin{array}{r} 73 \\ - 59 \\ \hline \end{array}$$

p 106

- 8 Fill in the algorithm.

p 107

Amy has 136 books and sells 29.

How many books does Amy have now?

- 9 a

$$\boxed{} \times 5 = 15$$

p 109–113

b $4 \times \boxed{} = 40$

c $3 \times 8 = \boxed{}$

d $\boxed{} \times 8 = 40$

e $50 \div \boxed{} = 5$

f $12 \div 3 = \boxed{}$



Checkpoint 6

10 Continue the pattern.

p 120



11 Slide the shape.

p 121



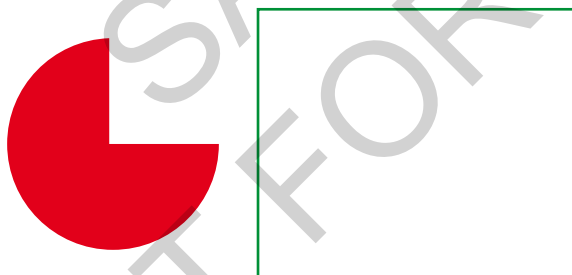
12 Flip the shape.

p 121



13 Half turn the shape.

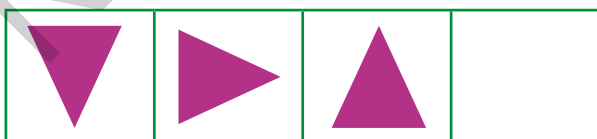
p 122



14 Identify the turn.

p 124

Complete the pattern.



15 Remi bought some wool.

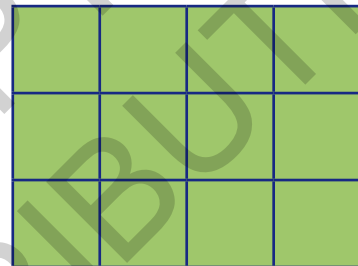
p 129

He cut off 132 cm and still had 155 cm left. How much wool did he buy?

16 Find the area.

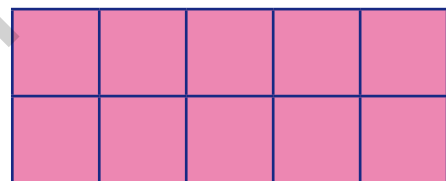
p 130

a



Area = _____ squares

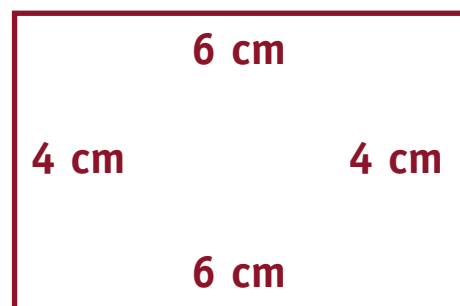
b



Area = _____ squares

17 Find the perimeter.

p 135



Perimeter = _____

18 A rectangular garden is 8 m long and 3 m wide.

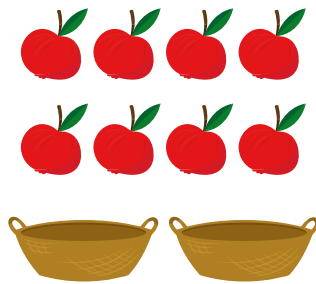
p 135

What is its perimeter?

- 1 Share the apples equally between 2 baskets.

How many apples are in each basket?

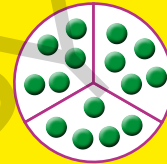
One half of _____ is _____.



Finding a unit fraction

Divide the whole number by the denominator.

Example



$\frac{1}{3}$ of 15

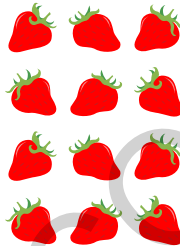
$$15 \div 3 = 5$$

So, $\frac{1}{3}$ of 15 = 5

- 2 Share the strawberries equally between 3 children.

$$12 \div 3 = \underline{\quad}$$

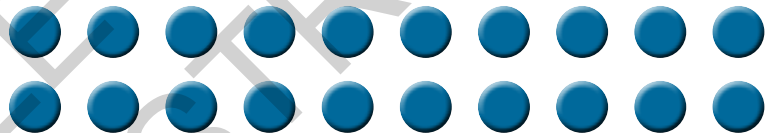
One third of _____ is _____.



- 3 Share them equally between 5 groups.

$$20 \div 5 = \underline{\quad}$$

One fifth of 20 is _____.



- 4 Complete.

a $\frac{1}{2}$ of 14 = _____

b $\frac{1}{3}$ of 18 = _____

c $\frac{1}{4}$ of 16 = _____

$$14 \div \underline{\quad} = \underline{\quad}$$

$$18 \div \underline{\quad} = \underline{\quad}$$

$$16 \div \underline{\quad} = \underline{\quad}$$

- 5 Find each fraction.

a $\frac{1}{2}$ of 18

b $\frac{1}{3}$ of 21

c $\frac{1}{4}$ of 28

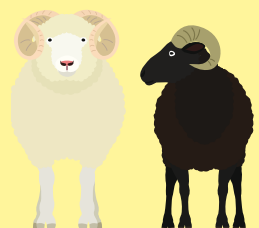
d $\frac{1}{5}$ of 30

e $\frac{1}{6}$ of 24

f $\frac{1}{5}$ of 15



Challenge! A farmer has 36 sheep.
One sixth are brown. Five sixth are white.
How many white sheep are there?





1 a What is $\frac{1}{2}$ of 10? _____

b How did you find the answer?

I shared _____

2 a What is $\frac{1}{3}$ of 6? _____

b How did you find the answer?

I divided _____



To find a **fraction**
of a **group**, **divide** by
the **denominator**.

$\frac{1}{4}$ of 8 $\rightarrow 8 \div 4 = 2$

3 a What is $\frac{1}{5}$ of 10? _____

b How did you find the answer?

$10 \div \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$



4 Find:

a $\frac{1}{2}$ of 24 _____ $\div$ _____ = _____

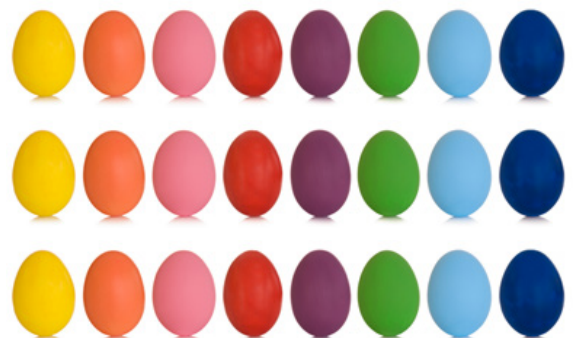
b $\frac{1}{3}$ of 24 _____ $\div$ _____ = _____

c $\frac{1}{4}$ of 24 _____ $\div$ _____ = _____

d $\frac{1}{6}$ of 24 _____ $\div$ _____ = _____

e $\frac{1}{8}$ of 24 _____ $\div$ _____ = _____

f $\frac{1}{12}$ of 24 _____ $\div$ _____ = _____



5 Find:



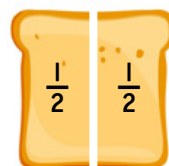
a $\frac{1}{5}$ of 20 _____ $\div$ _____ = _____



b $\frac{1}{10}$ of 20 _____ $\div$ _____ = _____

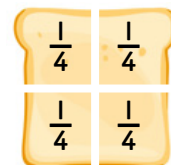
1 a For $\frac{1}{2}$ what is the whole?

$$2 \times \frac{1}{2} = \frac{\boxed{}}{2}$$



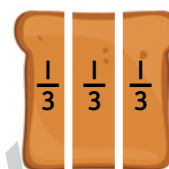
b For $\frac{1}{4}$ what is the whole?

$$4 \times \frac{1}{4} = \frac{\boxed{}}{4}$$



c For $\frac{1}{3}$ what is the whole?

$$3 \times \frac{1}{3} = \frac{\boxed{}}{3}$$



2 a $\frac{1}{2} = 3$ hats.

What is the whole group?

2 halves make a whole

→ 2 groups of 3 = $\boxed{}$



b $\frac{1}{4} = 2$ slices.

What is the whole group?

4 quarters make a whole

→ 4 groups of 2 = $\boxed{}$



3 a $\frac{1}{3} = 4$. What is the whole? $3 \times 4 = \boxed{}$



b $\frac{1}{5} = 3$. What is the whole? $5 \times 3 = \boxed{}$



To find a **whole set** from a fraction of the set, **multiply** the **denominator** by the **number**.

$$\frac{1}{4} = 2 \rightarrow 4 \times 2 = 8$$

4 a $\frac{1}{8} = 2$. What is the whole? $\boxed{} \times \boxed{} = \boxed{}$

b $\frac{1}{10} = 2$. What is the whole? $\boxed{} \times \boxed{} = \boxed{}$

c $\frac{1}{5} = 5$. What is the whole? $\boxed{} \times \boxed{} = \boxed{}$

To find the **whole** when you know a **unit fraction**:

- 1 Multiply the part by the denominator.
- 2 The answer is the whole.

Example

$\frac{1}{4}$ of a set is 3.

$$4 \times 3 = 12$$

The whole set is **12**.

1 Answer the multiplication sentence to find the whole.

a $\frac{1}{2}$ is 6.

$$2 \times 6 = \underline{\hspace{2cm}}$$

b $\frac{1}{3}$ is 4.

$$3 \times 4 = \underline{\hspace{2cm}}$$

c $\frac{1}{4}$ is 5.

$$4 \times 5 = \underline{\hspace{2cm}}$$

2 a $\frac{1}{2}$ is 8.

The whole is $\underline{\hspace{2cm}}$

because $2 \times 8 = \underline{\hspace{2cm}}$.

b $\frac{1}{3}$ is 6.

The whole is $\underline{\hspace{2cm}}$

because $3 \times 6 = \underline{\hspace{2cm}}$.

c $\frac{1}{4}$ is 7.

The whole is $\underline{\hspace{2cm}}$

because $4 \times 7 = \underline{\hspace{2cm}}$.

d $\frac{1}{5}$ is 9.

The whole is $\underline{\hspace{2cm}}$

because $5 \times 9 = \underline{\hspace{2cm}}$.

3 a $\frac{1}{3}$ of the stickers in a pack is 7. b $\frac{1}{4}$ of the players on a team are 6.

How many stickers in the pack? $\underline{\hspace{2cm}}$

How many players on the team? $\underline{\hspace{2cm}}$

4 Find the whole.

a $\frac{1}{2}$ is 11.

The whole is $\underline{\hspace{2cm}}$.

b $\frac{1}{3}$ is 9.

The whole is $\underline{\hspace{2cm}}$.

c $\frac{1}{4}$ is 10.

The whole is $\underline{\hspace{2cm}}$.

Mastery Checklist

- I can: ☐ find a fraction of a collection using diagram and division
☐ given a fraction, find the whole using diagrams and multiplication

- 1 a Jess had 12 balloons. She gave half to Tane. Jess gave Alex

balloons.



- b Tom had 16 cars. He gave one-quarter to Tui. Tom gave Tui

cars.



- 2 Lucy had 20 pencils. She gave half to Mia. Mia gave half of her pencils to Emma.

- a Lucy gave Mia _____ pencils.
b Mia gave Emma _____ pencils
c How many pencils does Lucy have left? _____



- 3 There are 24 marbles in a bag. One quarter are green. One sixth are orange. The rest are black.

- a How many marbles are green? _____
b How many marbles are orange? _____
c How many are black? _____

- 4 Jack has 32 apples. He gives half to Alex. Alex gives one quarter of his apples to his sister.

- a How many apples does Jack give to Alex? _____
b How many apples does Alex's sister get? _____
c How many apples does Jack have left? _____



Challenge! There are 24 children.

Each child will be given 1 piece of apple and 1 piece of orange.

Oranges are cut into quarters. Apples are cut into halves.



How many whole apples and oranges do they need?

whole apples

whole oranges

How to solve a 2-step problem

TERM 4
Week 2

1 Write the problem solving steps in order: *Read, Plan, Work, Check*

1 _____ 2 _____ 3 _____ 4 _____

2 Use your instructions to solve these 2-step problems.

- a Step 1:** Pina eats 2 pieces of fruit every day. Twice a week she eats an extra piece. How many pieces of fruit does she need for a week?

Step 2: _____

Step 3: _____

Answer: _____

Step 4: _____

- b Step 1:** Juan drinks 2 cups of water a day. On Saturday he plays soccer, so he drinks double. How many cups of water does Juan drink in a week?



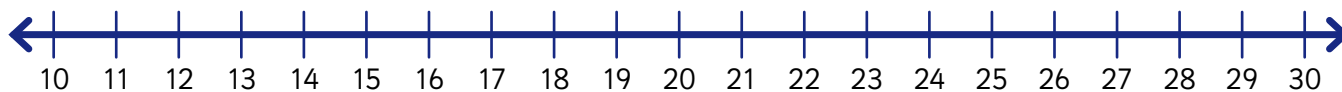
Step 2: _____

Step 3: _____

Answer: _____

Step 4: _____

1 Use the number line to find the answer.



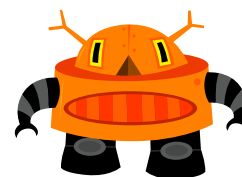
- a Sam made 13 sandwiches and 17 wraps for lunch. His friends ate 20 of them. How many are left? _____



- b Kim bought 29 marbles. She lost 15, then found nine. How many does she have now? _____



- c Jamie has \$12 in his wallet. He has \$15 in his money box. Jamie buys a robot for \$18. How much is left? _____



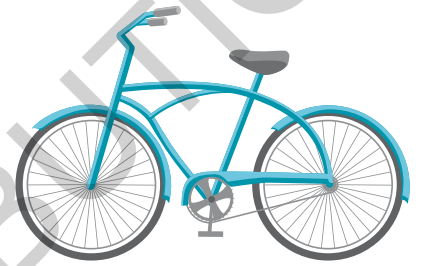
2 Write the algorithms.

- a Alex picks 13 apples and 15 peaches. She eats 25 over the next week. How many are left? _____

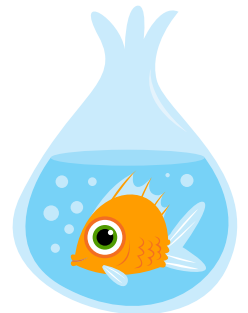
- b Li read 135 pages on Monday and 121 pages on Tuesday. The book has 378 pages. How many pages are left? _____

Find the answers. Use an algorithm, equation or number line.

- 1 Dizzy slept for 10 hours. He swam for 2 hours, rode his bike for 3 hours and watched a movie for 2 hours.
- How many hours were left in the day?



- 2 Waldo has four fish tanks. He buys 10 fish on Monday and 14 fish on Wednesday. Waldo shares the fish equally between the tanks.
- How many fish in each tank?



- 3 Mango has four songs to practise for 20 minutes each. She adds the time together and breaks it into two sessions.
- How long is each session?

Solve these problems.

- 1 Waldo has 83 caps. He gets sixteen new ones.
Then he gives away thirty of his old ones.
How many caps does Waldo have now? _____



- 2 Doc sleeps nine hours a night and naps for two hours every afternoon. How many hours does he sleep in a week?



- 3 Ruby has a necklace with 18 small beads and 12 large beads. When it breaks, she decides to share the beads equally and make three bracelets.
How many beads on each bracelet? _____

Solve these word problems. Show your working.

- 1 Waldo swam 35 metres out to sea. He had a rest, then swam 37 metres farther. Then he swam back to the beach. How far did he swim in total?

m

- 2 Doc walked 50 metres each day for 3 days. On the 4th day he walked 140 metres. How far did he walk in total?



m

- 3 Ruby bought 27 metres of cloth. She cut 4 pieces from it. 3 of the pieces were 4 metres each. How long was the 4th piece?

m

- 4 Dizzy's skipping rope is 5 cm shorter than Doc's. Ruby's is 6 cm shorter than Dizzy's. If Ruby's rope is 78 cm long, how long is Doc's skipping rope?

cm

Mastery Checklist

- I can: ☐ solve 2-step word problems using all four operations $+$ $-$ $\times$ $\div$
☐ write equations and algorithms, and use number lines to solve problems

Multiply by tens

TERM 4
Week 3

1 Multiply by ten.

a $3 \times 10 =$ _____

b $4 \times 10 =$ _____

c $7 \times 10 =$ _____

d $2 \times 10 =$ _____

e $9 \times 10 =$ _____

f $10 \times 10 =$ _____

g $12 \times 10 =$ _____

h $56 \times 10 =$ _____

i $91 \times 10 =$ _____

j $87 \times 10 =$ _____

$\times 10$

Multiplying
by 10.

$3 \times 10 = 3 \text{ tens}$

$\times \text{tens}$

5×30
 $= 5 \times 3 \text{ tens}$
 $= 15 \text{ tens}$
 $= 150$

2 Think about how many tens there are.

a $4 \times 60 = 4 \times 6 \text{ tens} = \text{_____} \text{ tens} = \text{_____}$

b $6 \times 30 = \text{_____} \times \text{_____} \text{ tens} = \text{_____} \text{ tens} = \text{_____}$

c $3 \times 40 = \text{_____} \times \text{_____} \text{ tens} = \text{_____} \text{ tens} = \text{_____}$

d $8 \times 20 = \text{_____} \times \text{_____} \text{ tens} = \text{_____} \text{ tens} = \text{_____}$

e $7 \times 50 = \text{_____} \times \text{_____} \text{ tens} = \text{_____} \text{ tens} = \text{_____}$

Challenge! Can you calculate the answers?

$5 \times 200 =$ _____

$4 \times 3,000 =$ _____

1 Multiply teen numbers step by step.

a $3 \times 12 = 3 \times (10 + 2)$
 $= (3 \times 10) + (3 \times 2)$
 $= 30 + 6$
 $= \underline{\hspace{2cm}}$

b $4 \times 15 = 4 \times (10 + 5)$
 $= (4 \times 10) + (4 \times 5)$
 $= \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$

c $2 \times 17 = 2 \times (\underline{\hspace{1cm}} + \underline{\hspace{1cm}})$
 $= (2 \times \underline{\hspace{1cm}}) + (2 \times \underline{\hspace{1cm}})$
 $= \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$

e $4 \times 13 = \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$

d $5 \times 16 = \underline{\hspace{1cm}} \times (\underline{\hspace{1cm}} + \underline{\hspace{1cm}})$
 $= (\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}) + (\underline{\hspace{1cm}} \times \underline{\hspace{1cm}})$
 $= \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$

f $3 \times 15 = \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$
 $= \underline{\hspace{2cm}}$

Multiply a teen number

Split by place value.

Multiply each part.

Add them back together.

$2 \times 14 = 2 \times (10 + 4)$
 $= (2 \times 10) + (2 \times 4)$
 $= 20 + 8$
 $= 28$

2 Multiply teen numbers with some mental calculations.

a $3 \times 17 = (\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}) + (\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}) = \underline{\hspace{2cm}}$

b $4 \times 16 = (\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}) + (\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}) = \underline{\hspace{2cm}}$

c $6 \times 12 = (\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}) + (\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}) = \underline{\hspace{2cm}}$

d $5 \times 19 = (\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}) + (\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}) = \underline{\hspace{2cm}}$

e $9 \times 13 = (\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}) + (\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}) = \underline{\hspace{2cm}}$

f $7 \times 14 = (\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}) + (\underline{\hspace{1cm}} \times \underline{\hspace{1cm}}) = \underline{\hspace{2cm}}$

1 Multiply two-digit numbers by a single digit.

a $4 \times 92 = 4 \times (\underline{\quad} + \underline{\quad})$
 $= (4 \times \underline{\quad} \times 10) + (4 \times 2)$
 $= (36 \times \underline{\quad}) + 8$
 $= \underline{\quad} + 8$
 $= \underline{\quad}$

b $3 \times 29 = 3 \times (20 + \underline{\quad})$
 $= (3 \times \underline{\quad} \times 10) + (3 \times 9)$
 $= (\underline{\quad} \times 10) + 27$
 $= \underline{\quad} + 27$
 $= \underline{\quad}$

d $6 \times 37 = 6 \times (\underline{\quad} + 7)$
 $= (6 \times 3 \times 10) + (6 \times \underline{\quad})$
 $= (\underline{\quad} \times 10) + \underline{\quad}$
 $= \underline{\quad} + \underline{\quad}$
 $= \underline{\quad}$

c $3 \times 78 = 3 \times (\underline{\quad} + \underline{\quad})$
 $= (3 \times \underline{\quad} \times 10) + (3 \times \underline{\quad})$
 $= (\underline{\quad} \times 10) + \underline{\quad}$
 $= \underline{\quad} + \underline{\quad}$
 $= \underline{\quad}$

e $5 \times 64 = 5 \times (\underline{\quad} + 4)$
 $= (5 \times \underline{\quad} \times 10) + (5 \times \underline{\quad})$
 $= (\underline{\quad} \times 10) + \underline{\quad}$
 $= \underline{\quad} + \underline{\quad}$
 $= \underline{\quad}$

Multiply a 2-digit number

Split by place value.

Multiply each part.

Add them back together.

$3 \times 25 = 3 \times (20 + 5)$
 $= (3 \times 2 \times 10) + (3 \times 5)$
 $= (6 \times 10) + 15$
 $= 60 + 15$
 $= 75$

2 Follow the arrows to find each multiple then add the results to solve.

For example: $6 \times 41 = 6 \times (40 + 1) = 240 + 6 = 246$

a $5 \times 32 = 5 \times (30 + 2) = 150 + \underline{\quad} = \underline{\quad}$

b $3 \times 73 = 3 \times (70 + 3) = \underline{\quad} + \underline{\quad} = 219$

c $8 \times 41 = 8 \times (40 + 1) = \underline{\quad} + 8 = \underline{\quad}$

d $7 \times 56 = 7 \times (50 + 6) = \underline{\quad} + \underline{\quad} = 392$

Multiplication problems

TERM 4
Week 3

Underline the question. Circle the facts. Work the question. Write the answer.

Problem	Working	Answer
1 Ken solves 20 puzzles a day. How many does he solve in a week?		<u> </u> puzzles
2 Kay has 8 chickens. Each day each hen lays an egg. How many eggs do they lay in 90 days?		<u> </u> eggs
3 Kai plants 9 beanstalks. Each beanstalk has 40 beans. How many beans does he grow?		<u> </u> beans
4 Kim packs 60 toys in each box. She packs 17 boxes. How many toys does she pack?		<u> </u> toys
5 Kyle watches 12 episodes of <i>Crazy Creatures</i> . Each episode is 50 minutes long. How many hours does he spend watching?		<u> </u> hours
6 Kelly and her three sisters each pack 8 shelves with 23 books on each shelf. How many books are on the bookshelf in total?		<u> </u> books

Mastery Checklist

I can: ☐ solve 2-step word problems using all four operations $+$ $-$ $\times$ $\div$
☐ write equations and algorithms, and use number lines to solve problems



Multi-step problem

Lin has 350 glass rubies. She uses 2 rubies in each ring, 5 rubies in each bracelet, and 8 rubies in each necklace she makes. Lin makes 20 rings, 10 bracelets and 30 necklaces. How many rubies does she have left?



- 1 Read the problem. Circle the clue words and numbers.
- 2 Plan the work. Write the equations.

- 3 Work the problem. Write the answer.

_____ rubies are left.

- 4 Check your answer. Does it answer the question?

I can solve a problem by:

☐ writing equations for each step ☐ using multiplication strategies

Comparing lengths using data

TERM 4
Week 4

1 Use a ruler to measure these items in centimetres.

a



b



c



d

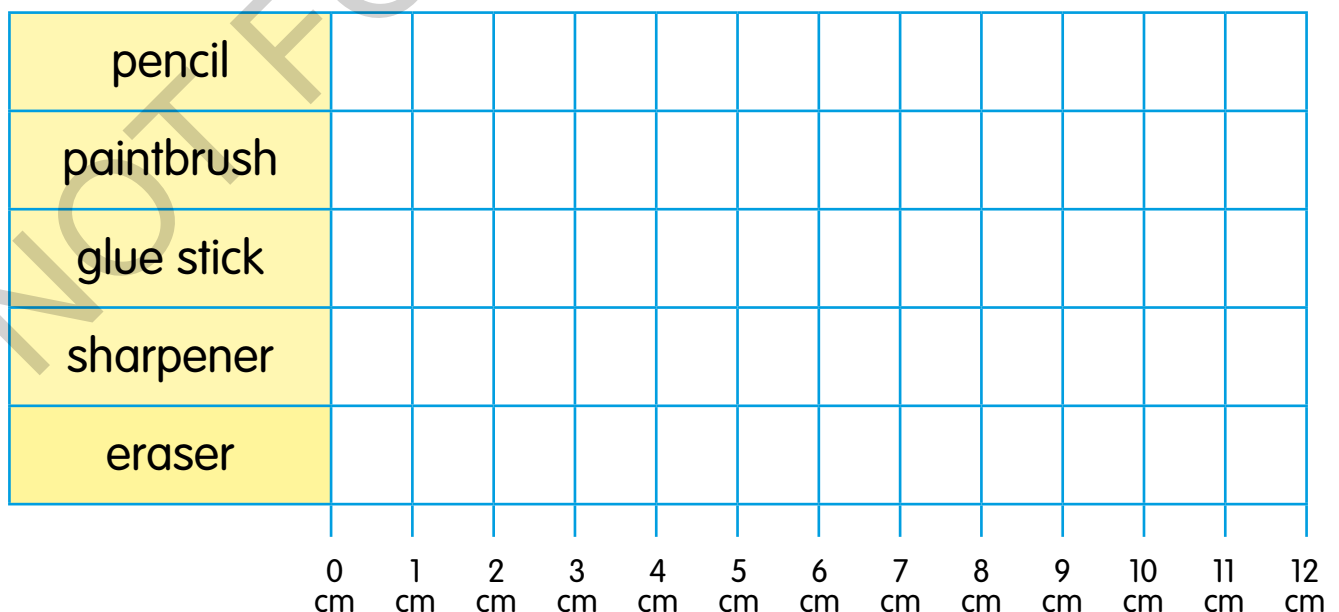


e



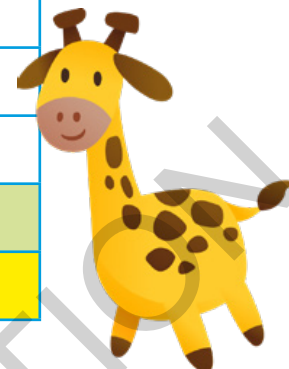
2 Use the data to complete the bar graph.

Stationery Lengths



Height of Safari Animals

Elephant						
Rhinoceros						
Lion						
Giraffe						
metres	1	2	3	4	5	6



- Which animal's height is 4 m?

- How tall is the rhinoceros? _____ m
- Which is the tallest animal? _____
- Which is the shortest animal? _____
- Order the animals from shortest to tallest.

shortest



tallest

- What is the difference between the tallest and shortest animal? _____ m
- Which tool would be best for measuring the length of these animals?
☐ 30 cm ruler ☐ tape measure ☐ trundle wheel
- Barry says this data proves that the giraffe is the tallest animal on the planet. Is he correct? Why or why not?

Collecting data

Tally marks
can help you
keep count.

|||| = 5

TERM 4
Week 4

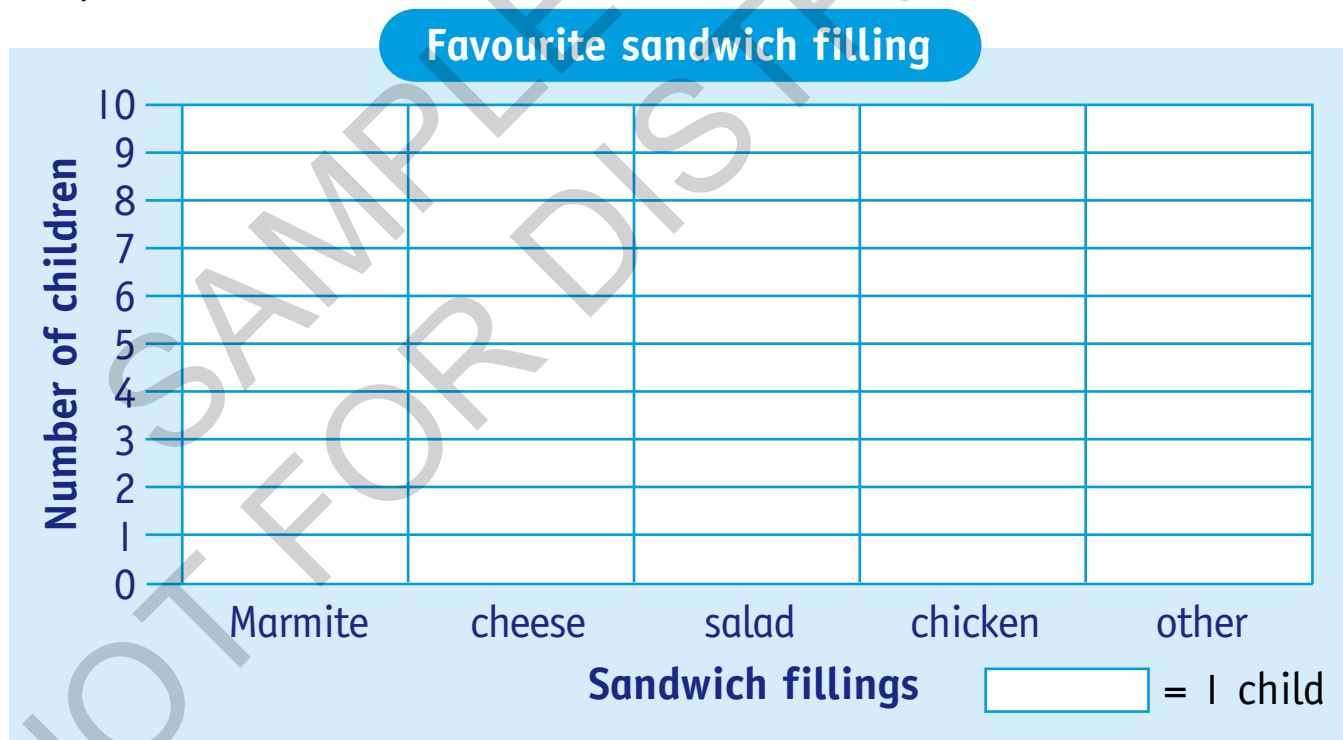


What is our favourite sandwich filling?

- 1 Ask the class and tally the results.

Sandwich filling	Tally	Total
Marmite		
cheese		
salad		
chicken		
other		

- 2 Graph the results.



- 3 Which sandwich filling was:

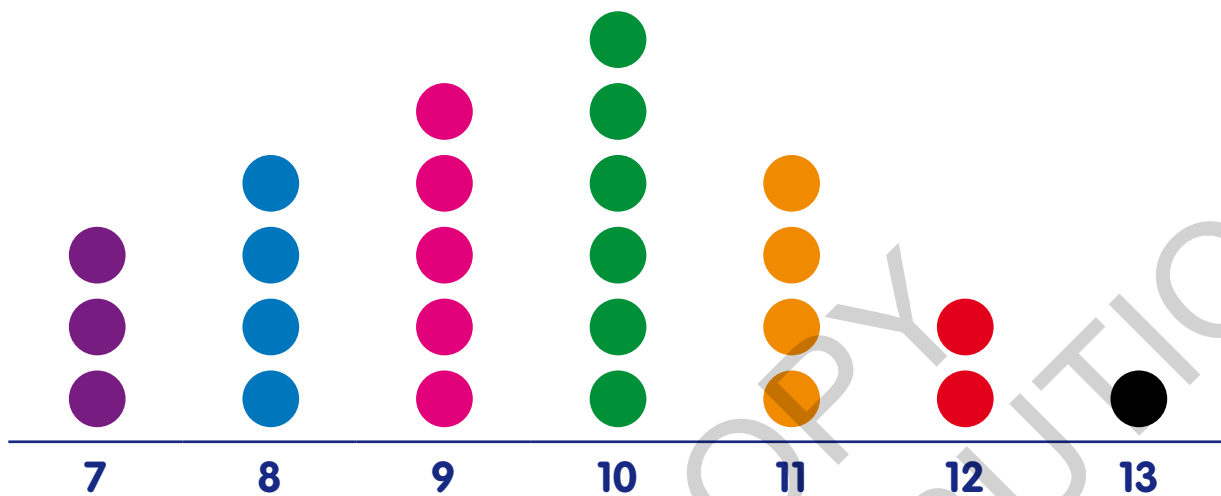
a most popular? _____ b least popular? _____

- 4 How many children liked:

a chicken? _____ b cheese? _____ c Marmite? _____

- 5 How many children altogether? _____

Shoe Sizes for Class 3K



- 1 How many children have shoes of size:
 - a 7? _____
 - b 11? _____
 - c 9? _____
 - d 13? _____
 - e 12? _____
 - f 8? _____
 - g 10? _____
- 2 Which two shoe sizes have the same number? _____
- 3 a Which shoe size is most popular? _____
 b How do you know? _____
- 4 a Which shoe size is least popular? _____
 b How do you know? _____
- 5 What is the difference between:
 - a the largest and smallest sizes? _____
 - b the numbers for sizes 9 and 12? _____
- 6 a How many children are in class 3K? _____
 b How do you know? _____
- 7 a If you made the same graph for your class, would it be exactly the same? Yes / No
 b Why? _____





Make a dot plot

Survey your friends to find out how many of something they have, such as pets, bags, hats.

- 1 Write your question here: How many _____
- 2 Ask your friends your question and tally the answers.

0	1	2	3	4	5	More?

- 3 Show your data in a dot plot.

- 4 What did you find out?

I can solve problems by:

☐ conducting a survey ☐ making a dot plot

Estimating addition

TERM 4
Week 5



• \$3

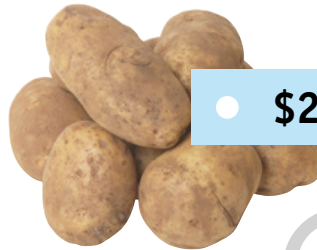
• \$5



• \$2



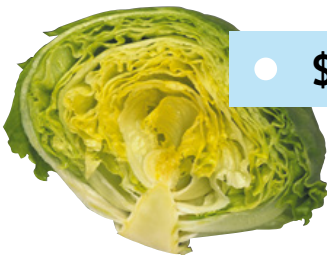
• \$3



• \$2

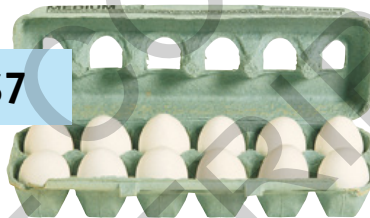


• 50c



• \$2

• \$7



• \$8

Estimate, then calculate the total cost for each list.

estimate

Shopping list	Price
bread	
milk	
cheese	
Total cost	

estimate

Shopping list	Price
eggs	
milk	
potatoes	
Total cost	

estimate

cheese	
potatoes	
lettuce	
2 apples	
bread	
Total cost	

estimate

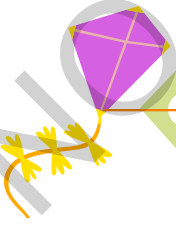
milk	
4 apples	
chocolates	
strawberries	
milk	
Total cost	

Equivalent amounts of money

TERM 4
Week 5

Show 2 different ways to make these amounts of money.

Toy Sale

	\$2.20
	\$2.70
	\$1.80
	80c
	\$1.40
	\$3.60
	\$5.00



Game Zone

Alice and Zac went to Game Zone.

They spent all their money.

Show how they spent their money.



Alice	Zac

How would you spend \$12 at Game Zone?

I can solve a problem by:

- ☐ subtracting money ☐ writing equations or drawing a diagram

Mothers' Day Stall

You have \$20 to spend. What would you buy for your mum?
Find the total and the change. Show your working,



Total: _____ Change: _____

I can solve a problem by:

☐ adding prices ☐ subtracting from \$20

Checkpoint 7

1



p 140

a One half of 12 = _____

b One quarter of 12 = _____

2 a Find half of 18.

p 142

$$\boxed{} \div \boxed{} = \boxed{}$$

b Half is 7. What is the whole?

$$\boxed{} \times \boxed{} = \boxed{}$$

3 Milly has 24 stickers.

p 146

Her friend gives her 18 more stickers. She then gives 9 stickers to her brother.

How many stickers does Milly have now? _____

4 a $30 \times 4 =$

p 152

b $26 \times 5 =$

c $25 \times 10 =$

5 Complete the table.

p 129

Groups	1	2	3	4	5
Wheels (4 per group)	4	8			

6 Kai has 328 marbles.

p 120

He gives away 146 marbles.

How many marbles does he have left? _____

7 Circle $\frac{1}{4}$ of the stars.

p 140



p 114 & 116

8 a $\frac{1}{4} + \frac{2}{4} =$

b $\frac{3}{5} + \frac{1}{5} =$

9 The tree is at A2.

Where is the treasure? _____

A				
B				
C				
	1	2	3	4

10 A robot is facing you.

p 174

It makes one quarter turn clockwise

Which direction is it facing now? _____



Checkpoint 7

- 11 Write two different ways to make: p 161

90c _____

- 12 Write two different ways to make: p 161

\$3.40 _____

- 13 A toy costs \$8.70. p 162
A book costs \$6.20.
What is the total cost?

- 14 Lunch costs \$8.70. p 163
Mia pays with a \$20 note.
How much change does she get?

- 15 A class has 32 students. p 141
One quarter of the students are absent.

How many students are absent?



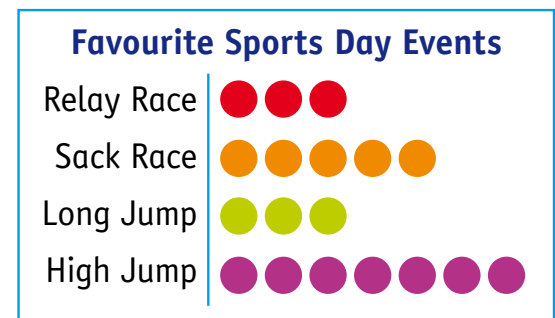
- 16 A farmer has 6 paddocks. p 152
Each paddock contains 24 sheep.

How many sheep are there altogether? _____

- 17 Explain your thinking. p 143
Sam says: One fifth of 20 is 10.
Is Sam correct?

- 18 6×36 p 152
 $= 6 \times (\text{ } + \text{ })$
 $=$ _____
 $=$ _____
 $=$ _____

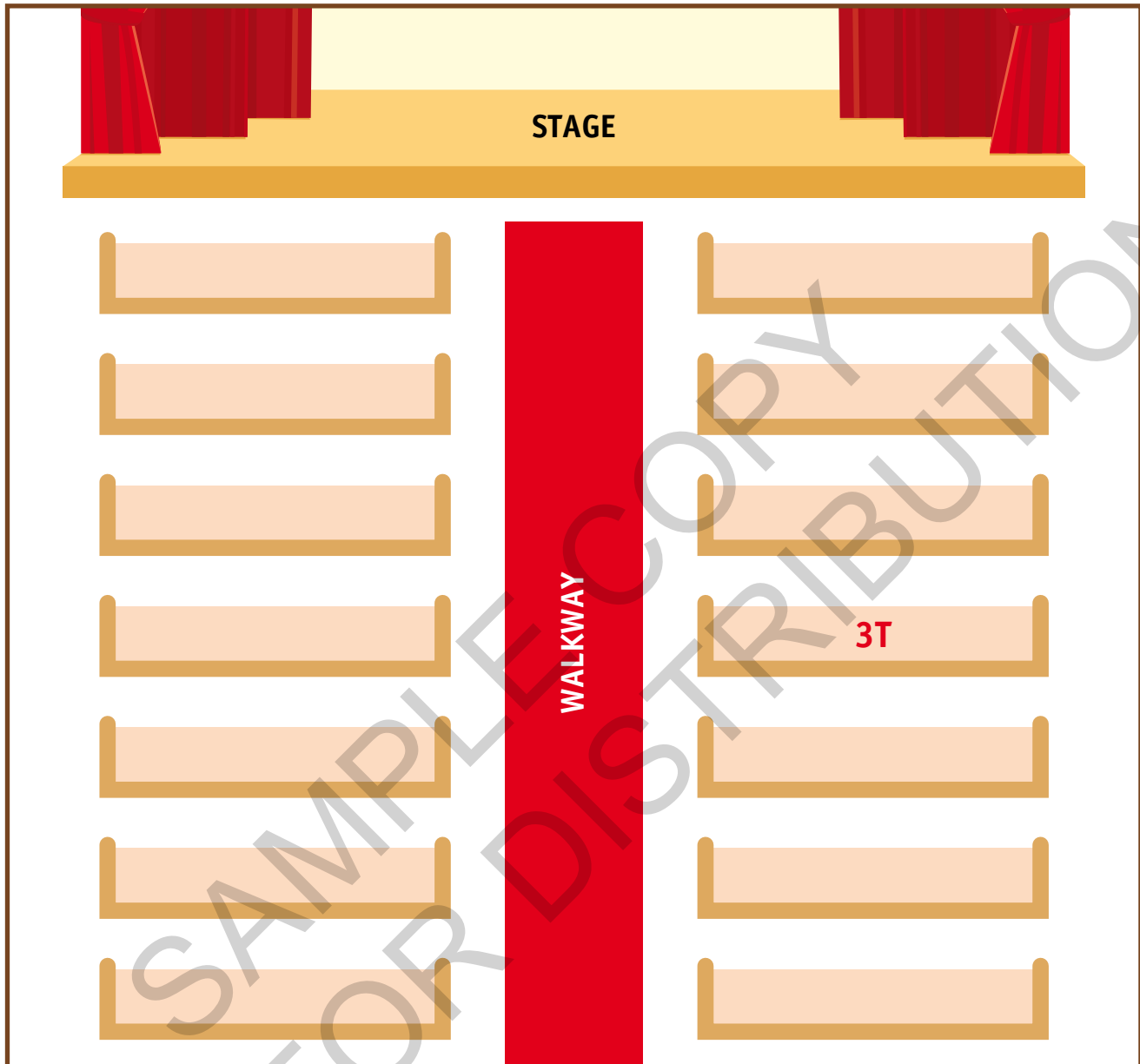
- 19 Use the dot plot to answer the questions. p 158



How many students chose the Sack Race? _____

Which event was the most popular? _____

How many students chose the High Jump over the Relay Race? _____

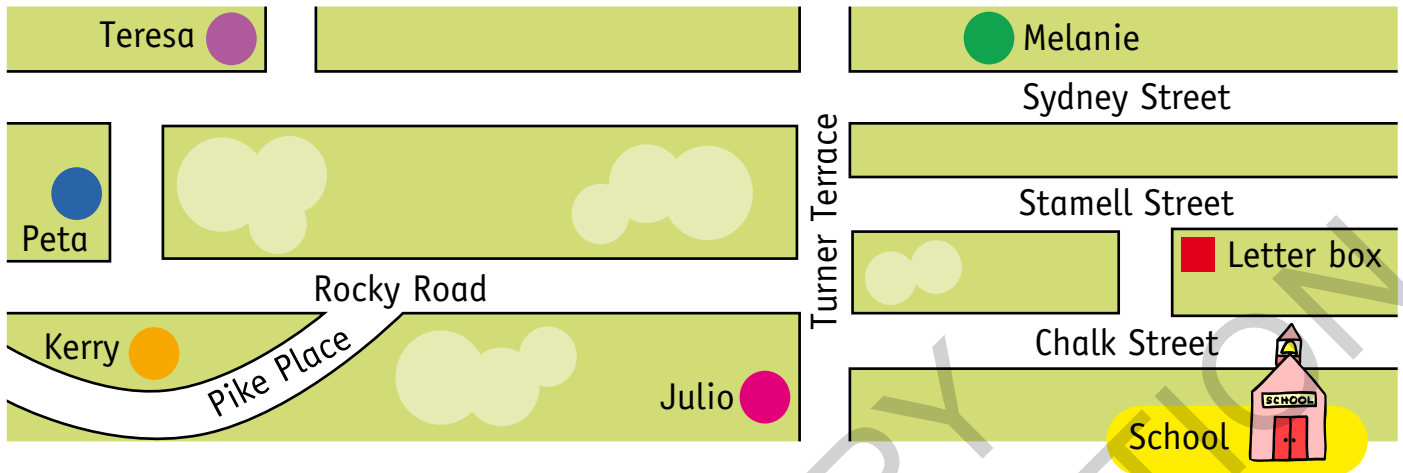


At Boorloo Primary, there is an assembly every Friday. You are in class **3T**. Use the clues below to label the assembly class chart.

- KG is at the front of the assembly on the left side.
- KJ is three classes in front of 3T.
- 4C is seated behind 3T.
- 5Z is seated behind 4C.
- 6A is seated behind 5Z.
- ID is seated behind KJ.
- IN is seated behind KG.
- 2P is seated in front of 3T.
- 5M is seated to the left of 5Z.
- 4B is seated three classes behind IN.
- 2C is seated to the left of 2P.
- 6G is seated behind 5M.
- 3F is seated in front of 4B.

Street map

TERM 4
Week 6



- 1
 - a Who lives closest to the school? _____
 - b On which street does Melanie live? _____
 - c Who lives at the corner of two streets? _____
 - d Peta went to visit her friend. She walked out her front gate, turned left, then turned right. She walked past Turner Terrace, and entered a house on her left.
Who did she visit? _____
 - e Draw the path she followed in red.
 - f Who lives furthest from Julio? _____
- 2 Teresa's mum asked her to post a letter on her way to school. In green, draw her path to school.
- 3 Write directions to tell how Kerry walks home from school.

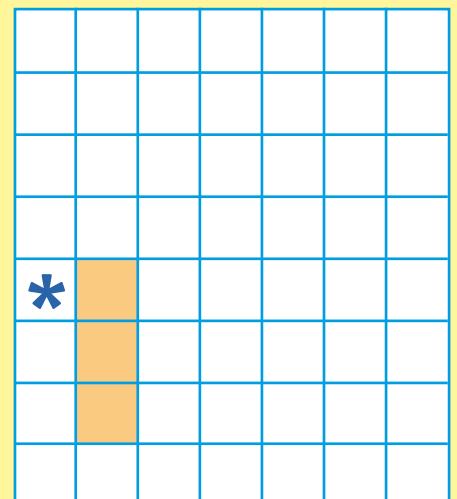
Challenge!

Start at * and follow the directions.

The first two moves have been done.

- | | | | |
|-----------|----------|-----------|----------|
| a 1 right | b 2 down | c 1 right | d 1 down |
| e 2 right | f 1 up | g 1 right | h 2 up |
| i 1 left | j 1 up | k 3 left | l 2 up |
| m 1 right | n 1 up | o 3 right | p 1 down |

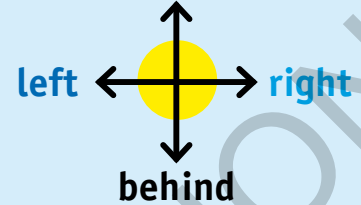
q What number have you drawn?



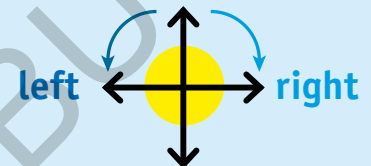


Directions

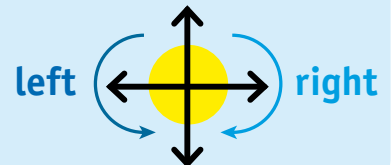
forward
in front



quarter turn



half turn



- 1 Kiri is in the middle of the park. Match.

- a What is in front of Kiri? - b What is behind Kiri? - c What is to the left of Kiri? - d What is to the right of Kiri?	- A the swing - B the pond - C the gate - D the statue
--	---

- 2 Imagine Kiri turns:

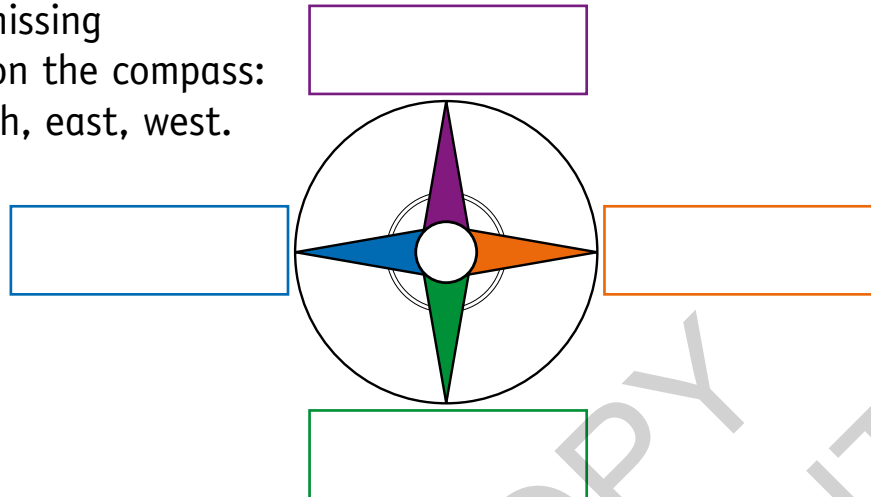
- | | |
|---|---|
| <ol style="list-style-type: none"> a a quarter turn to her left.
What is Kiri looking at now?
_____ c a half turn to her left.
What is Kiri looking at now?
_____ | <ol style="list-style-type: none"> b a quarter turn to her right.
What is Kiri looking at now?
_____ d a half turn to her right.
What is Kiri looking at now?
_____ |
|---|---|

- 3 Kiri moves forward to the statue and takes the path on the left. She turns right and stops halfway up that section. On her left is a duck. Draw the duck on the map.
- 4 Kiri follows the duck to the pond. At the pond Kiri turns left and goes forward along the straight path. She turns right in the middle of the park. Where is Kiri going? _____

Compass directions

TERM 4
Week 6

- 1 Write the missing directions on the compass: north, south, east, west.



Remember:
Never
Eat
Soggy
Weet-Bix!



- 2 Use the compass on the map to complete these sentences.
- a Bluey is _____ of Solo beach.
 - b Collie is _____ of Solo beach.
 - c Collie is _____ of Oodleville.
 - d Collie is _____ of Bitsa.

- 3
- a If you took a boat south from Halo beach, what beach would you land on?

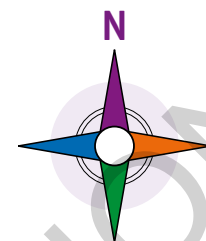
 - b From Collie, if you went east, what beach would you come to?

 - c From Solo Beach, if you drove north where would you end up?

 - d You fly west from Solo Beach and off the map.
Which two towns do you fly over?
_____ and _____

Lost gold adventure

You are on a quest to find a hidden treasure!



- Rules:**
- Start at ●.
 - You cannot travel through the forest, river, swamp or mountains.
 - ✗ marks the spot where you will find the treasure.

1 Follow each person's instructions on the map to see who made it to the treasure.

Kylie

South 5
East 3
North 2
East 3
South 3

Syd

East 2
South 1
East 1
South 5
East 3

Dalla

South 4
East 3
North 2
East 1
South 2

2 Write a different set of directions to get from ● to ✗.

I can solve problems by:

☐ following instructions ☐ understanding directions

Introducing the kilogram



TERM 4
Week 7

- 1 Hold a one kilogram weight. Feel how heavy it is.

Estimate whether these items are heavier or lighter than 1 kg. Use balance scales to check.

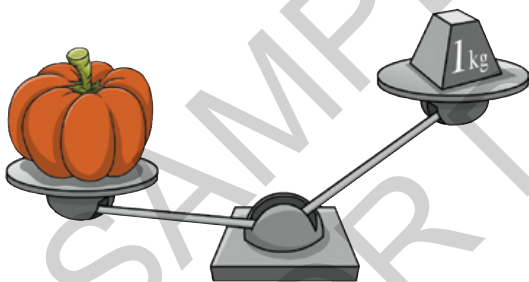
Objects are weighed in kilograms.
kg is the short way to write kilograms.



Item	Estimate	Balance scales
a 2 maths books		
b a pencil case		
c a book box		
d a full lunch box		
e 1 brick		
f a bottle of water		
g a football		
h a backpack		
i a whiteboard marker		
j 20 pencils		

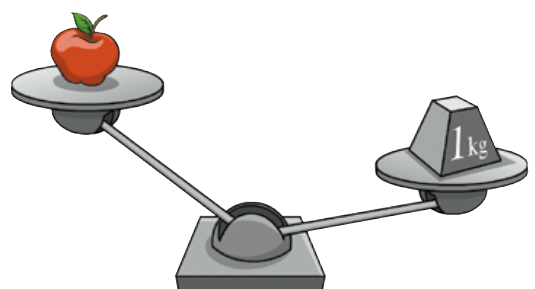
2

a



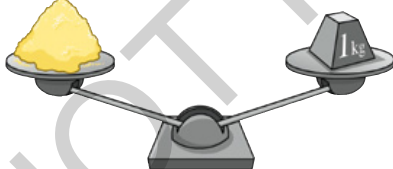
The pumpkin weighs _____ than 1 kg.

b



The apple weighs _____ than 1 kg.

c

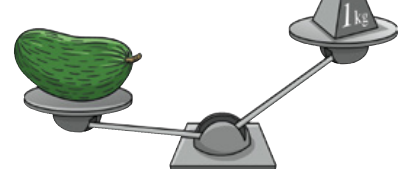


The flour _____

d



e



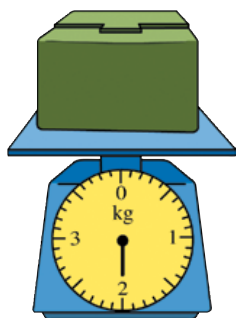
- 3 Write five items that are weighed in kilograms.

Weighing in kilograms

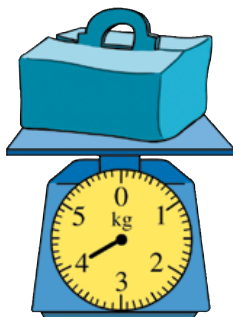


TERM 4
Week 7

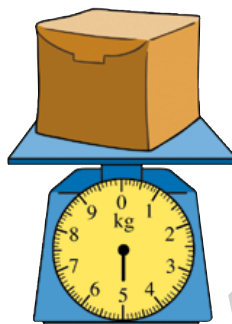
1 What is the mass for each box?



a _____ kg



b _____ kg



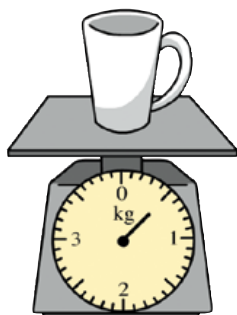
c _____ kg



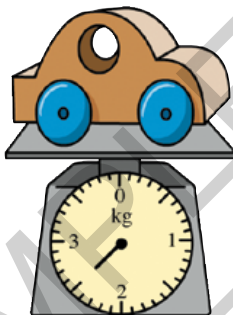
d _____ kg

e What is the total mass of the four boxes? _____

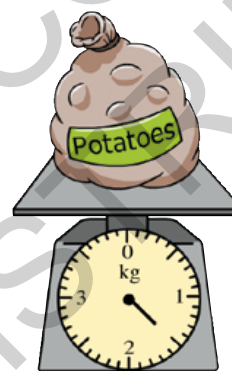
2 What is the mass for each object?



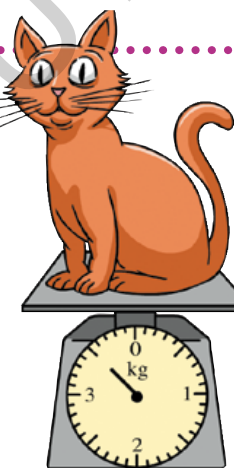
a _____ kg



b _____ kg



c _____ kg



d _____ kg

e Order the objects from lightest to heaviest.

3 Use balance scales to find:

a two things that weigh about 1 kg. _____

b two things that weigh about 2 kg. _____

c two things that weigh about $\frac{1}{2}$ kg. _____

d two things that are exactly the same weight.

_____ How heavy are they? _____

Challenge! How can you find the heaviest of three similar objects with only a balance scale and no weights?

Solution: _____



1 Change to kilograms.

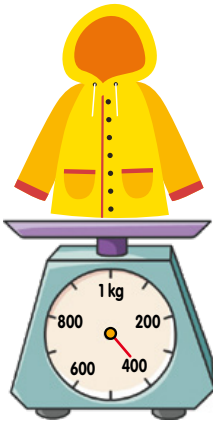
- a 3,000 g _____ b 9,000 g _____
c 7,000 g _____ d 5,000 g _____

2 Change to grams.

- a 4 kg _____ b 6 kg _____
c 2 kg _____ d 5 kg _____

3 Write the mass of each object.

a



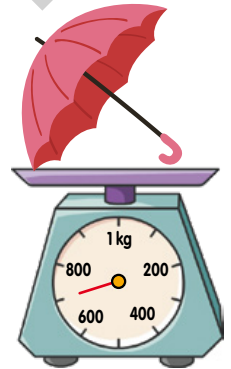
b



c



d



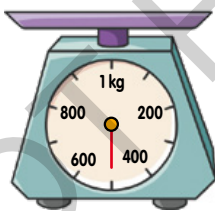
kilogram kg
gram g

1,000 g = 1 kg

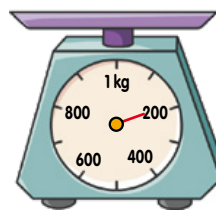


4 Draw an item on each scale that weighs the shown amount of grams.

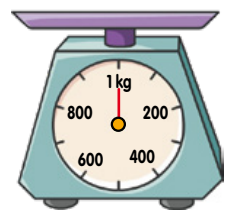
a



b

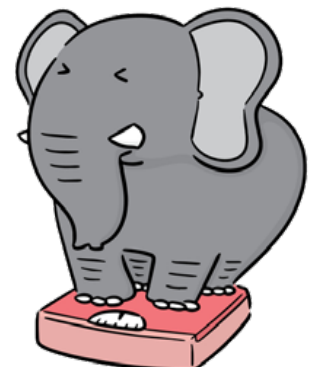


c



5 Would you use grams or kilograms to weigh:

- a an elephant? _____ b a mouse? _____
c a sparrow? _____ d a horse? _____
e a packet of biscuits? _____ f a big bag of rice? _____
g a tea bag? _____ h a mattress? _____
i a tea towel? _____ j a dishwasher? _____





apple 269 g



pumpkin 2 kg



capsicum 180 g



orange 200 g



pineapple 1 kg



potato 310 g



onion 125 g



mushroom 45 g



tomato 250 g



strawberry 20 g



cucumber 480 g



rockmelon 750 g

- 1 Circle the masses in that are measured in kilograms.
- 2 What is the other type of mass unit called? _____
- 3 Which type of measurement is heavier? Circle: kg or g
- 4 a Which is the heaviest item? _____
b What is its mass? _____
- 5 a Which is the lightest item? _____
b What is its mass? _____
- 6 Order the masses from heaviest to lightest. _____

- 7 Which two items together weigh 1 kg?

- 8 How much would 2 weigh?
a strawberries _____ b oranges _____
c pumpkins _____ d onions _____

Weight in te reo Māori

Use te reo Māori words to solve this problem.
Remember that 1 manokaramu = 1,000 karamu.
You go to the market to buy fruits and vegetables.
You can see each item and its maihea on page 174.
Your kete can only hold 1 manokaramu.
What will you buy?

Te reo Māori

karamu: gram

manokaramu: kilogram

maihea: weight

kete: basket



- 1
 - a Choose 6 items.
 - b Write the maihea of each in karamu.
 - c Write how many of each item you will buy.
 - d Find the total for that item in karamu.

a Item	b Maihea	c How many	d Total
Total			

- 2 Add to find the total maihea of all the items in your kete.
Try to get close to 1 manokaramu.

- 3 Which items cannot be carried home in your kete and why?

I can solve problems by:

- ☐ understanding mass in te reo Māori ☐ making a list

Capacity in cups



Capacity
is how much
something
holds.

TERM 4
Week 8

Find four drink containers like these.

1 How many cups does each hold? Colour the number of cups.

a	Container	Number of cups	b	Container	Number of cups
c			d		

2 During one week of school:

a Alex drank 10 . How many cups did he drink? _____

b Freya drank 5 . How many cups did she drink? _____

c Ned drank 2 and 3 cups of water. How many cups did he drink? _____

d Karen drank 2 and 3 . How many cups did she drink? _____



Challenge! Jenny makes 2 jugs of cordial a day. Each jug holds 5 cups. How many cups does Jenny make:

a in one week?

b in 4 weeks?



1 a How much milk did the carton hold? _____

b How do you know?

L is litre

1 litre = 1 L



2 a Fill an empty 1 litre container with water.

b Pour that water into empty cups.

How many cups does it fill? _____

c 1 litre = _____ cups



3 Estimate which containers hold:

less than 1 litre	about 1 litre	more than 1 litre

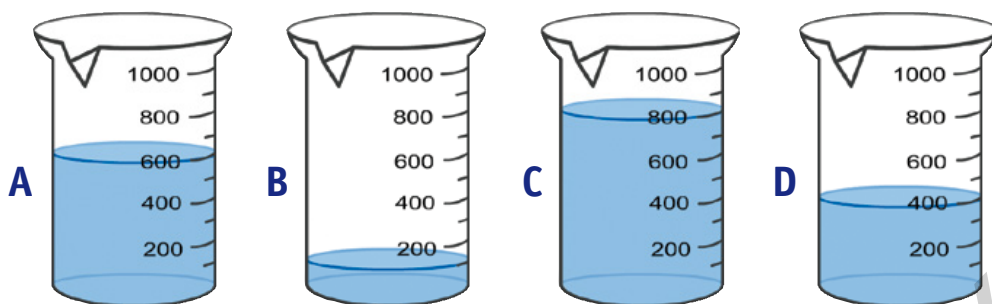


4 Use your 1 litre container and water to measure the containers that you estimate hold about 1 litre. Tick ✓ the containers where your estimate was correct.

Capacity in millilitres

TERM 4
Week 8

These containers measure millilitres.



mL is millilitre
1,000 mL = 1 L
500 mL = $\frac{1}{2}$ L



1 How much water is in:

a A? _____ **b** B? _____ **c** C? _____ **d** D? _____

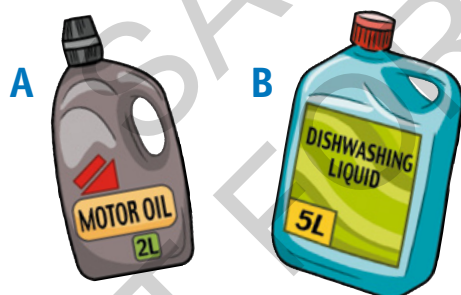
2 How much more is in: **a** A than B? _____ **b** C than D? _____

3 How much must be added to:

a B to make 1 L? _____ **b** C to make 1 L? _____

4 Which container is closest to: **a** 1 L? _____ **b** $\frac{1}{2}$ L? _____

5 Name 4 things which could be measured in millilitres.



6 **a** What is the capacity of A?

b What is the capacity of B?

c Which container holds more?

d How much more does it hold?

7 True (T) or false (F)?

a A dose of medicine is 5 L. _____

b A car can hold 40 L of petrol. _____

c A glass holds about 250 mL. _____

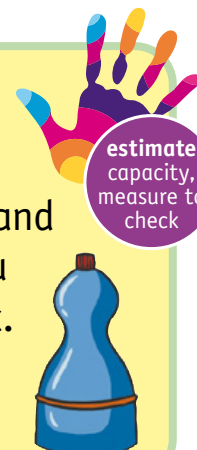
d The capacity of a cup is 200 L. _____

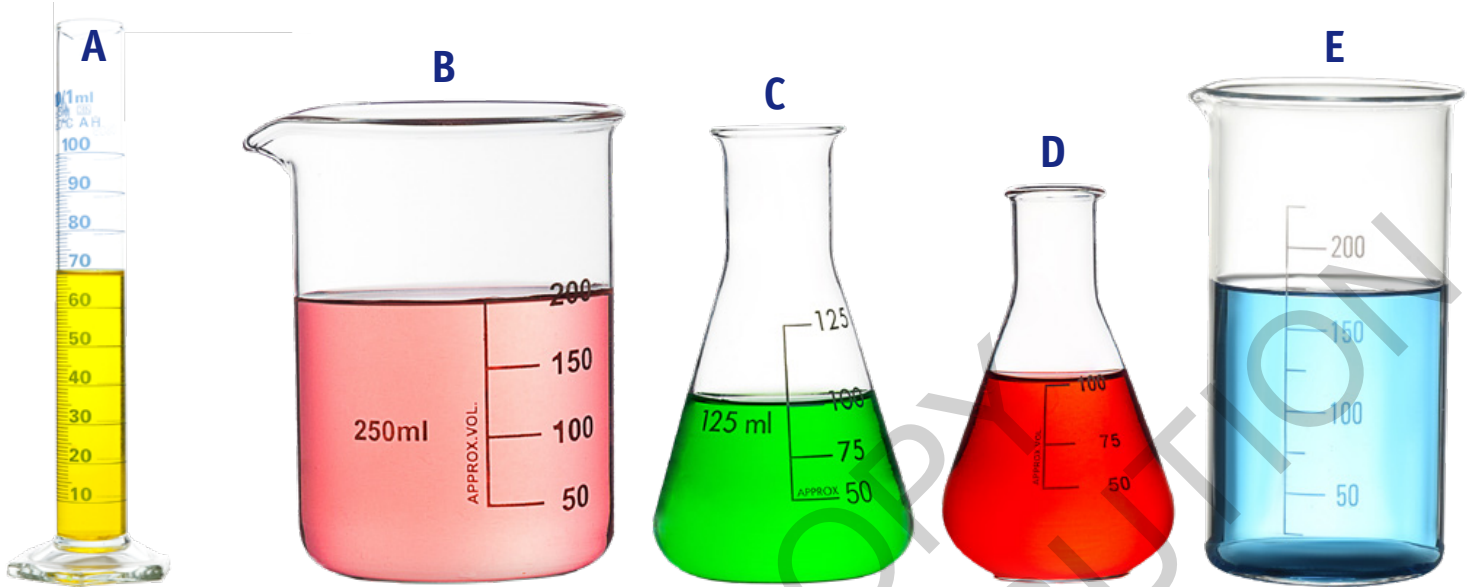
e My dog drank 1 mL of water today. _____

f The tall vase can hold 1 L of water. _____

Challenge!

On a large bottle place an elastic band to show where you think $\frac{1}{2}$ L is. Check. Try with different containers.





1 How much liquid is in each container?

A _____ B _____ C _____

D _____ E _____

2 Which container holds the most? _____

3 Which container holds the least? _____

4 Name two containers that hold about the same amount?

5 Write the containers in order from holds least to holds most.

6 Name two containers which hold more than any of these.

7 Name two containers which hold less than any of these.

Mastery Checklist

- I can: ☐ estimate and measure capacity in cups, litres and millilitres
☐ compare capacities
☐ calculate with capacities



Jay's Soup

Jay makes her favourite soup by mixing 3 soups together — 1 bean, 2 chicken noodle and 1 vegetable. Draw and write your answers.

Each can = 1 cup



1 cup



- 1 Jay wants to make 8 cups of her favourite soup. How could she make it?

- 2 Jay is having a dinner for 12 people. Every person will have 1 cup of soup. How could she make her soup for 12 people?

- 3 She wants to make cordial for them too. The cordial recipe says, "Mix 1 cup cordial with 3 cups of water." How many cups of cordial will she use to make 12 cups?

I can solve a problem by:

- ☐ calculating capacity in cups ☐ writing or drawing a diagram

Students are organising teams, equipment and events for a sports day.

- 1 There are 348 students already here. Another 276 students arrive.

How many students are there altogether? _____

- 2 There are 8 relay teams. Each team has a relay baton.

How many batons are needed? _____

- 3 Complete:

$$8 \times 6 = \underline{\hspace{2cm}}$$

$$48 \div 8 = \underline{\hspace{2cm}}$$

- 4 One quarter of the 40 ribbons are blue.

How many blue ribbons are there?



- 5 Add the fractions:

$$\frac{2}{8} + \frac{3}{8} = \underline{\hspace{2cm}}$$

- 6 Complete the pattern of team numbers:

580, 590, 600, _____, _____

- 7 There are 36 cones. They are shared equally between 4 teams.

How many cones does each team receive? _____

- 8 The 400 metre event takes 10 minutes per race. There are 8 races.

How long does it take to complete all 400 metre races? _____



Challenge!

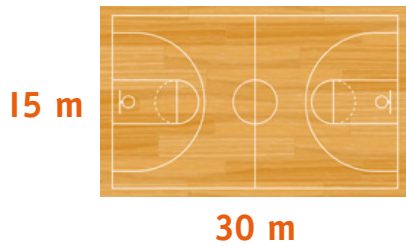
One third of the runners are in the red team.

There are 24 runners.

How many runners are in the red team?



- 1 What is the area of the basketball court?



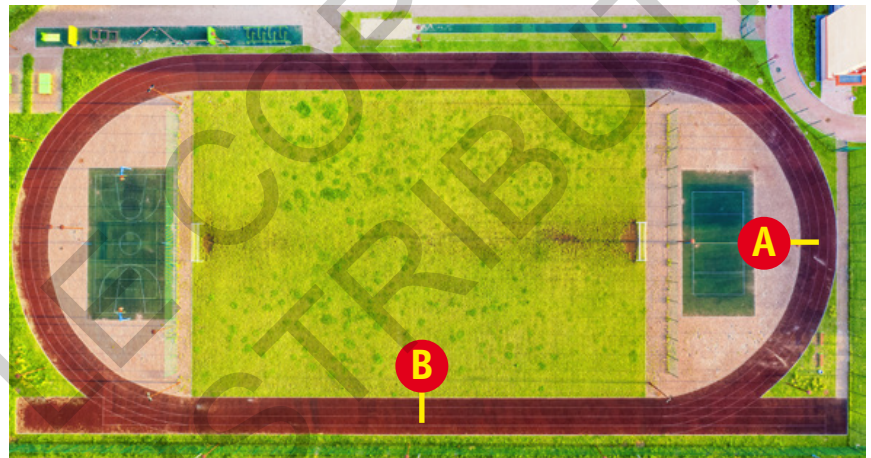
- 2 How many sides does the athletics track sign have?



- 3 Runner A runs half way around in a clockwise direction.

Runner B runs three quarters of the way around in the same direction.

Where are they now?



- 4 Which Sports Day event are you most excited about?

Event	Students
Sack Race	40
Basketball	18
Egg and Spoon Race	26
Long Jump	20

- a Which event is most popular?

- b Which event is least popular?

- c How many votes altogether? _____

- 5 Continue the pattern:



Challenge!

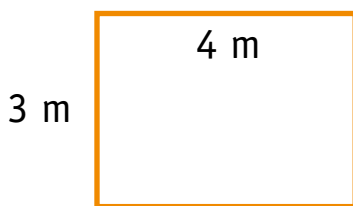
Explain one way a square and a rectangle are alike.

Sports Day has begun!

- 1 The first race starts at 9:30 am.
It lasts 30 minutes.
What time does it finish?

- 2 The sack race begins at 11:15 am.
It lasts 45 minutes.
What time does it finish?

- 3 Find the area of the long jump pit.



Area = _____ square units

- 4 Find the perimeter of the running track.



Perimeter = _____ units

- 5 The water bottle holds:
How much water
in 4 bottles?

500 mL



- 6 A box of medals
weighs:



- 7 Write two ways to make \$1.40
using coins.

- 8 A student buys:

- a drink for \$2.50
- a sandwich for \$5.20

How much do they spend? _____

- 9 They pay with \$20.
How much change do they receive?

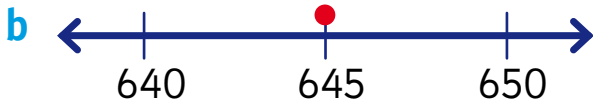
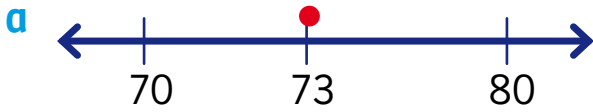
- 10 The relay track is 100 m long
and 5 m wide.

What is its perimeter? _____

Checkpoint 8

1 Circle the nearest ten.

p 51



2 What is the nearest 100?

p 52

a 523 _____

b 672 _____

3 Round to ten to estimate:

p 53

a $319 + 495 =$ _____

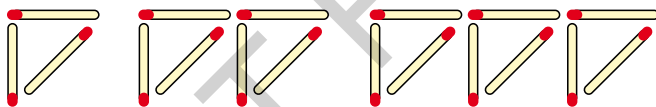
b $282 - 131 =$ _____

4 Maia's soccer game took 2 hours. It ended at 5:15. What time did it start?

p 125

5 Complete the table.

p 127



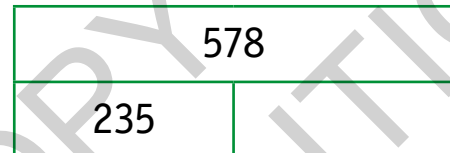
Number of shapes	1	2	3	4	5
Number of matches	3				



6 Complete the bar model.

p 129

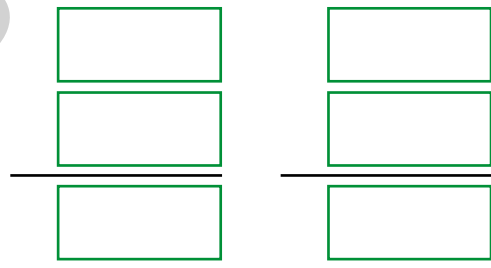
Ben bought 578 pens for his class. At the end of the year he had 235 left. How many pens were used during the year?



7 Fill in the algorithms.

p 147

Mari collected 162 cards. She buys 127 cards. Then sells 64 cards. How many cards left? _____



8 a $3 \times 9 =$ _____

p 109–113

b $3 \times 6 =$ _____

c $5 \times 4 =$ _____

d $5 \times 7 =$ _____

e $10 \times 8 =$ _____

f $10 \times 11 =$ _____

g $4 \times 7 =$ _____

h $4 \times 8 =$ _____

i $8 \times 5 =$ _____

j $8 \times 6 =$ _____

Checkpoint 8

- 9 a $2 \times 8 = \square$
 $\square \div 8 = 2$
- b $5 \times 3 = \square$
 $\square \div \square = 3$
- c $4 \times 6 = \square$
 $\square \div \square = \square$

p 109–113

- 10 Ceci has \$10. She bought an ice-cream for \$2 and a sandwich for \$4.40.

p 163

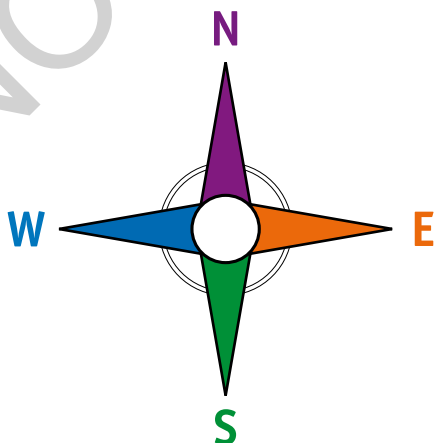
- a How much did she spend?

- b How much change did she get?

- 11 Complete.

p 169

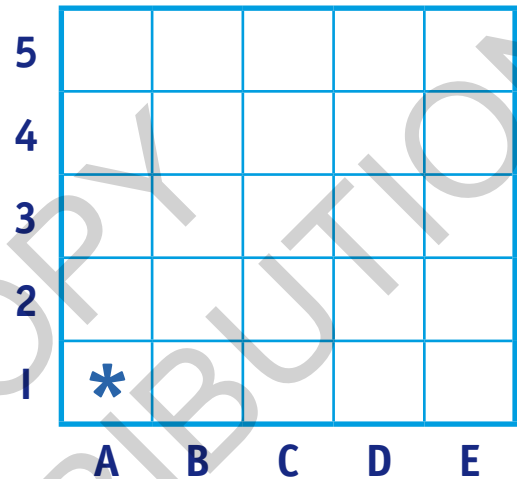
- a N = _____
- b E = _____
- c S = _____
- d W = _____



- 12 Start at * and move:

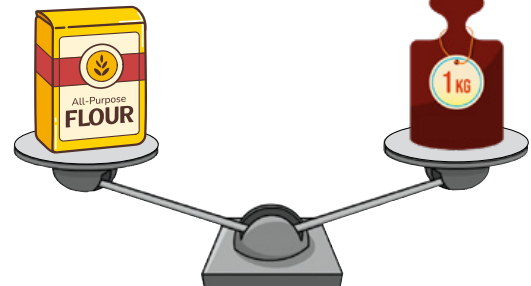
p 170

- a E1 b E3 c A3
 d A5 e E5 f E3



- g What number did you trace? _____

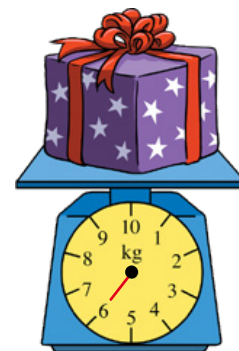
- 13



p 171

The flour weighs _____

- 14

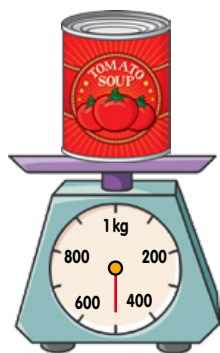


p 172

The box weighs _____

Checkpoint 8

15



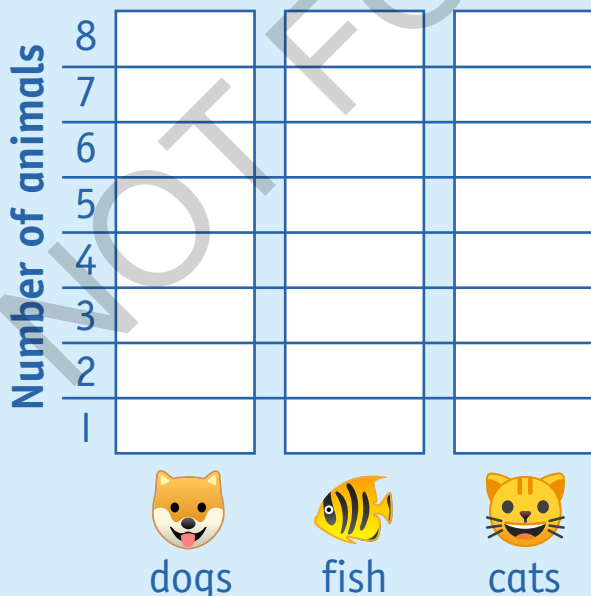
The can weighs _____

p 173

16 Use the tallies to complete the table and the graph.

	Tally	Total
dogs		
fish		
cats		

Pets of 3A



17 Use the graph to answer.

p 178

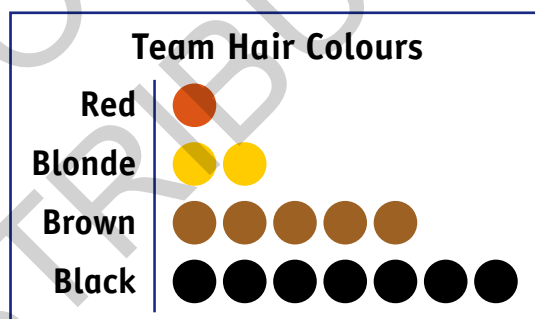
a Which pet is most popular?

b Which pet is least popular?

c How many pets altogether?

18

p 179



a Which colour is most popular?

b Which colour is least popular?

c How many people altogether?

19

a $\frac{5}{9} + \frac{2}{9} =$

p 181–182

b $\frac{9}{12} - \frac{4}{12} =$

c $\frac{9}{10} + \frac{\text{ }}{10} =$

Fast facts

Fast facts to 10

$1 + 1 =$	$5 - 2 =$	$2 + 2 =$	$4 - 2 =$	$1 + 2 =$
$2 - 2 =$	$2 + 2 =$	$5 - 1 =$	$3 + 2 =$	$3 - 1 =$
$0 + 4 =$	$4 - 2 =$	$3 + 1 =$	$5 - 4 =$	$5 + 0 =$
$3 - 0 =$	$1 + 2 =$	$4 - 1 =$	$4 + 1 =$	$5 - 3 =$
$10 + 0 =$	$10 - 5 =$	$4 + 4 =$	$9 - 6 =$	$3 + 7 =$
$7 - 2 =$	$9 + 1 =$	$10 - 7 =$	$5 + 5 =$	$8 - 5 =$
$2 + 6 =$	$9 - 4 =$	$8 + 2 =$	$10 - 2 =$	$6 + 3 =$
$8 - 4 =$	$1 + 6 =$	$7 - 3 =$	$7 + 2 =$	$10 - 6 =$

.....

Fast facts to 20

$5 + 6 =$	$15 - 5 =$	$4 + 7 =$	$12 - 4 =$	$7 + 6 =$
$13 - 2 =$	$7 + 5 =$	$14 - 7 =$	$6 + 8 =$	$11 - 8 =$
$6 + 6 =$	$14 - 5 =$	$9 + 4 =$	$13 - 5 =$	$8 + 7 =$
$11 - 2 =$	$12 + 3 =$	$15 - 9 =$	$10 + 4 =$	$12 - 9 =$
$8 + 9 =$	$20 - 7 =$	$15 + 4 =$	$17 - 6 =$	$13 + 6 =$
$18 - 5 =$	$9 + 9 =$	$16 - 6 =$	$12 + 5 =$	$19 - 7 =$
$14 + 6 =$	$17 - 4 =$	$7 + 9 =$	$18 - 12 =$	$8 + 8 =$
$19 - 11 =$	$10 + 10 =$	$20 - 5 =$	$11 + 9 =$	$16 - 8 =$

.....

Fast facts

$\times 0, \times 1, \times 2, \times 5, \times 10$

$5 \times 0 = \underline{\quad} \quad 10 \times 1 = \underline{\quad} \quad 1 \times 1 = \underline{\quad} \quad 3 \times 10 = \underline{\quad} \quad 10 \times 2 = \underline{\quad}$

$4 \times 5 = \underline{\quad} \quad 2 \times 5 = \underline{\quad} \quad 3 \times 5 = \underline{\quad} \quad 5 \times 10 = \underline{\quad} \quad 2 \times 1 = \underline{\quad}$

$0 \times 10 = \underline{\quad} \quad 4 \times 10 = \underline{\quad} \quad 2 \times 2 = \underline{\quad} \quad 3 \times 2 = \underline{\quad} \quad 10 \times 10 = \underline{\quad}$

$0 \times 2 = \underline{\quad} \quad 1 \times 5 = \underline{\quad} \quad 6 \times 5 = \underline{\quad} \quad 5 \times 5 = \underline{\quad} \quad 6 \times 10 = \underline{\quad}$

$1 \times 0 = \underline{\quad} \quad 3 \times 1 = \underline{\quad} \quad 0 \times 1 = \underline{\quad} \quad 9 \times 10 = \underline{\quad} \quad 4 \times 2 = \underline{\quad}$

$8 \times 5 = \underline{\quad} \quad 7 \times 5 = \underline{\quad} \quad 9 \times 5 = \underline{\quad} \quad 7 \times 10 = \underline{\quad} \quad 4 \times 1 = \underline{\quad}$

$0 \times 4 = \underline{\quad} \quad 8 \times 10 = \underline{\quad} \quad 8 \times 2 = \underline{\quad} \quad 6 \times 2 = \underline{\quad} \quad 7 \times 5 = \underline{\quad}$

$9 \times 2 = \underline{\quad} \quad 1 \times 6 = \underline{\quad} \quad 3 \times 0 = \underline{\quad} \quad 10 \times 0 = \underline{\quad} \quad 7 \times 0 = \underline{\quad}$

$\div 1, \div 2, \div 5, \div 10$

$1 \div 1 = \underline{\quad} \quad 10 \div 1 = \underline{\quad} \quad 30 \div 1 = \underline{\quad} \quad 50 \div 10 = \underline{\quad} \quad 8 \div 2 = \underline{\quad}$

$50 \div 5 = \underline{\quad} \quad 60 \div 10 = \underline{\quad} \quad 25 \div 5 = \underline{\quad} \quad 12 \div 2 = \underline{\quad} \quad 2 \div 1 = \underline{\quad}$

$90 \div 10 = \underline{\quad} \quad 10 \div 10 = \underline{\quad} \quad 16 \div 2 = \underline{\quad} \quad 10 \div 2 = \underline{\quad} \quad 10 \div 10 = \underline{\quad}$

$20 \div 2 = \underline{\quad} \quad 70 \div 10 = \underline{\quad} \quad 10 \div 5 = \underline{\quad} \quad 14 \div 2 = \underline{\quad} \quad 40 \div 5 = \underline{\quad}$

$35 \div 5 = \underline{\quad} \quad 5 \div 1 = \underline{\quad} \quad 80 \div 10 = \underline{\quad} \quad 30 \div 10 = \underline{\quad} \quad 18 \div 2 = \underline{\quad}$

$15 \div 5 = \underline{\quad} \quad 45 \div 5 = \underline{\quad} \quad 20 \div 5 = \underline{\quad} \quad 3 \div 1 = \underline{\quad} \quad 4 \div 1 = \underline{\quad}$

$6 \div 3 = \underline{\quad} \quad 100 \div 10 = \underline{\quad} \quad 20 \div 10 = \underline{\quad} \quad 4 \div 2 = \underline{\quad} \quad 70 \div 7 = \underline{\quad}$

$6 \div 2 = \underline{\quad} \quad 30 \div 6 = \underline{\quad} \quad 30 \div 5 = \underline{\quad} \quad 16 \div 8 = \underline{\quad} \quad 40 \div 10 = \underline{\quad}$

Fast facts

$\times 3, \times 4, \times 8$

$5 \times 3 =$ _____	$3 \times 3 =$ _____	$3 \times 6 =$ _____	$1 \times 3 =$ _____	$4 \times 4 =$ _____
$1 \times 4 =$ _____	$3 \times 4 =$ _____	$5 \times 4 =$ _____	$8 \times 6 =$ _____	$8 \times 1 =$ _____
$3 \times 2 =$ _____	$5 \times 8 =$ _____	$2 \times 4 =$ _____	$3 \times 8 =$ _____	$6 \times 4 =$ _____
$8 \times 4 =$ _____	$0 \times 8 =$ _____	$7 \times 4 =$ _____	$3 \times 0 =$ _____	$2 \times 8 =$ _____
$4 \times 5 =$ _____	$7 \times 8 =$ _____	$7 \times 3 =$ _____	$10 \times 3 =$ _____	$4 \times 6 =$ _____
$9 \times 4 =$ _____	$8 \times 9 =$ _____	$4 \times 0 =$ _____	$5 \times 8 =$ _____	$8 \times 8 =$ _____
$6 \times 3 =$ _____	$10 \times 4 =$ _____	$8 \times 5 =$ _____	$3 \times 7 =$ _____	$6 \times 8 =$ _____
$8 \times 10 =$ _____	$3 \times 6 =$ _____	$9 \times 3 =$ _____	$3 \times 5 =$ _____	$9 \times 8 =$ _____

$\div 3, \div 4, \div 8$

$15 \div 3 =$ _____	$9 \div 3 =$ _____	$8 \div 8 =$ _____	$40 \div 4 =$ _____	$12 \div 4 =$ _____
$8 \div 4 =$ _____	$16 \div 4 =$ _____	$6 \div 3 =$ _____	$24 \div 8 =$ _____	$3 \div 3 =$ _____
$40 \div 8 =$ _____	$12 \div 3 =$ _____	$80 \div 8 =$ _____	$16 \div 8 =$ _____	$24 \div 4 =$ _____
$20 \div 4 =$ _____	$32 \div 8 =$ _____	$30 \div 3 =$ _____	$21 \div 3 =$ _____	$4 \div 4 =$ _____
$48 \div 8 =$ _____	$24 \div 3 =$ _____	$27 \div 3 =$ _____	$28 \div 4 =$ _____	$72 \div 8 =$ _____
$36 \div 4 =$ _____	$16 \div 4 =$ _____	$32 \div 4 =$ _____	$56 \div 8 =$ _____	$18 \div 3 =$ _____
$72 \div 8 =$ _____	$30 \div 3 =$ _____	$48 \div 8 =$ _____	$40 \div 10 =$ _____	$16 \div 2 =$ _____
$30 \div 3 =$ _____	$15 \div 5 =$ _____	$30 \div 10 =$ _____	$80 \div 10 =$ _____	$40 \div 4 =$ _____



Mathletics

Brilliant Job!

Mahi Ngingila!

Congratulations,
you've completed the
Year 3 programme.

