

## LAH9 - STEM Challenge - A Home for Nature

A STEM Challenge from bp educational service

Your challenge is to design an innovative and creative home for nature for the newly cleared area at school, (down by the outdoor classroom) which will improve biodiversity in our local area and help to tackle the decline in our native wildlife.

Watch the Seesaw video first.

Then click on the link - <https://bpes.bp.com/>

Click on 'Enter a student code'

Enter code: 32549

Scroll down and click on the video lesson to watch wildlife presenter, Michaela Strachan, introduce the challenge, explain the importance of biodiversity, and inspire you to take part!

Complete the challenge

- Name your design
- Draw it
- Explain, in 200 words or less, why you chose to design your home for nature.

Remember, your design must be for the newly cleared area at school (down by the outdoor classroom).

Complete the challenge by Monday 1st March, 2021.

We will then submit your entry to bp educational service and you could be in with a chance, with the help of bp educational service, of bringing your home for nature design to life!

Get creative and have fun!



## Year 5 Maths Activity Mat: 1

### Answers

#### Section 1

Order the following numbers from smallest to largest.

836    386    368    638

368	386	638	836
smallest		largest	

#### Section 2

Jules has £2.30 and Jen has £1.40. They share the money equally between themselves. How much will they each have?

£1.85

#### Section 4

Match the mixed fractions and improper fractions.

$$\frac{3}{2} \quad \text{---} \quad 1\frac{1}{2}$$

$$\frac{4}{3} \quad \text{X} \quad 1\frac{3}{4}$$
$$\frac{7}{4} \quad \text{X} \quad 1\frac{1}{3}$$

#### Section 5

Match the following fractions to the equivalent decimal fraction.

$$\frac{1}{5} \quad \text{---} \quad 0.75$$
$$\frac{3}{4} \quad \text{---} \quad 0.5$$
$$\frac{1}{2} \quad \text{---} \quad 0.2$$

#### Section 6

Calculate the perimeter of these rectangles:



5cm



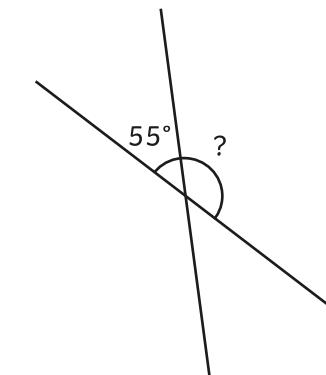
6cm

26cm

18cm

#### Section 7

Calculate the missing angle:



about 500g



125°

#### Section 8

Estimate the weight of a tin of baked beans in grams.



# Year 5 Maths Activity Mat: 1

## Answers

### Section 1

Order the following numbers from smallest to largest.

56 892    52 698    52 689    56 298    56 289

52 689	52 698	56 289	56 298	56 892
smallest			largest	

### Section 2

Mr and Mrs Ahmed and their 3 children visit the zoo. Adult tickets are priced £8.50 and child tickets are priced £4.75. How much change will Mr Ahmed get from £50?

£18.75

### Section 4

Match the mixed fractions and improper fractions.

$$\frac{13}{4} \quad \quad 1\frac{3}{4}$$
$$\frac{9}{4} \quad \quad 2\frac{1}{4}$$
$$\frac{7}{4} \quad \quad 3\frac{1}{4}$$

### Section 5

Write the equivalent to the fractions and decimal fractions.

$$\frac{3}{4} = 0.75$$

$$\frac{7}{10} = 0.7$$

$$\frac{5}{8} = 0.625$$

### Section 3

Eric wants some pizzas cut into 20 pieces. He could have two pizzas cut into 10 pieces. Explain 3 other ways he could share some pizzas into 20 pieces.

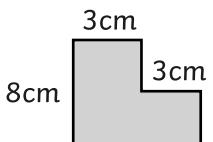
1/20 pizzas cut into 20/1 pieces.

2/10 pizzas cut into 10/2 pieces.

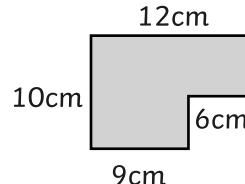
4/5 pizzas cut into 5/4 pieces.

### Section 6

Calculate the perimeter of these rectilinear shapes:



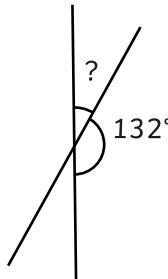
28cm



44cm

### Section 7

Calculate the missing angle:



48°

### Section 8

Estimate the capacity of a large carton of orange juice in millilitres.



1000ml/1 litre

## Section 1

Order the following numbers from smallest to largest, writing them in numerals:

Thirty three thousand and thirty three; thirty thousand and three; thirty thousand and thirty; thirteen thousand and thirty; thirty thousand, three hundred and thirty.

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## Section 2

Mr and Mrs Edwards and their 3 children visit the cinema. Here are the cost of the tickets.

Adult	£9.50
Child	£5.75
Family (2 adults and 2 children)	£26

How much will Mr and Mrs Edwards save by buying a family ticket?

1

## **Section 4**

Complete the mixed fractions and improper fractions so each pair is equivalent.

$$\frac{15}{\boxed{\phantom{00}}} = 3\frac{3}{4}$$

$$\frac{11}{5} = 2 \frac{1}{\boxed{\phantom{00}}}$$

$$\frac{14}{\boxed{\phantom{00}}} = 4 \frac{2}{\boxed{\phantom{00}}}$$

## Section 5

Write the equivalent to  
the fractions and decimal  
fractions.

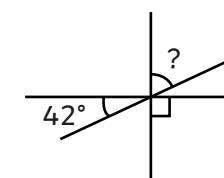
$$\frac{17}{20} =$$

3  
8

$$= 0.4$$

## Section 6

Draw a rectilinear hexagon with a perimeter of 36 cm. (not to scale). Mark all the necessary measurements.



A large, empty rectangular box with a black border, intended for children to draw or write in.

## Section 7

Calculate the missing angle:

## Section 8

Estimate the weight of a 1.5 litre bottle of lemonade.



## **Year 5 Maths Activity Mat: 1**

## Answers

## Section 1

Order the following numbers from smallest to largest, writing them in numerals:

Thirty three thousand and thirty three; thirty thousand and three; thirty thousand and thirty; thirteen thousand and thirty; thirty thousand, three hundred and thirty.

<b>13 030</b>	<b>30 003</b>	<b>30 030</b>	<b>30 330</b>	<b>33 033</b>
smallest			largest	

## Section 2

Mr and Mrs Edwards and their 3 children visit the cinema. Here are the cost of the tickets.

Adult	£9.50
Child	£5.75
Family (2 adults and 2 children)	£26

How much will Mr and Mrs Edwards save by buying a family ticket?

**£4.50**

## Section 4

Complete the mixed fractions and improper fractions so each pair is equivalent.

$$\frac{15}{4} = 3\frac{3}{4}$$

$$\frac{11}{5} = 2 \frac{1}{5}$$

$$\frac{14}{3} = 4 \frac{2}{3}$$

## Section 5

Write the equivalent to  
the fractions and decimal  
fractions.

$$\frac{17}{20} = 0.85$$

$$\frac{3}{8} = 0.375$$

$$\frac{2}{5} \text{ or } \frac{4}{10} = 0.4$$

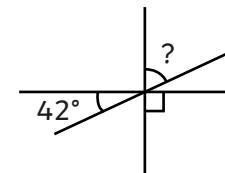
## Section 6

Draw a rectilinear hexagon with a perimeter of 36 cm. (not to scale). Mark all the necessary measurements.

## Various Answers

## Section 7

Calculate the missing angle:



48°

## Section 8

Estimate the weight of a 1.5 litre bottle of lemonade.

**1.5kg**



# Year 5 Maths Activity Mat

(2)

## Section 1

Circle the numbers where 4 is in the hundreds place:

5490      5049

6428      4628

9048      9408

## Section 2

Calculate the following in your head:

$23 + 14 =$

$31 + 35 =$

$45 - 21 =$

$75 - 44 =$

## Section 3

Calculate the following in your head:

$34 \times 10 =$

$109 \times 10 =$

$450 \div 10 =$

$2330 \div 10 =$

## Section 5

Write the following decimals in words:

$3.4 =$

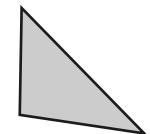
$4.9 =$

$0.6 =$

$2.2 =$

## Section 7

Write regular and irregular by the matching shape.



## Section 8

Here is a table showing the favourite colours of children in a class.

Colour	Number
Blue	12
Orange	3
Pink	11
Green	6

What is the difference between the number of children who chose the most favourite colour and the least favourite colour?

## Section 6

Complete the table to convert between millilitres and litres.

Millilitres	Litres
250 ml	
	3 l
500 ml	

# Year 5 Maths Activity Mat: 2

## Answers

### Section 1

Circle the numbers where 4 is in the hundreds place:

5490

5049

6428

4628

9048

9408

### Section 2

Calculate the following in your head:

$$23 + 14 = 37$$

$$31 + 35 = 66$$

$$45 - 21 = 24$$

$$75 - 44 = 31$$

### Section 3

Calculate the following in your head:

$$34 \times 10 = 340$$

$$109 \times 10 = 1090$$

$$450 \div 10 = 45$$

$$2330 \div 10 = 233$$

### Section 4

Use the < or > signs to compare these fractions:

$\frac{3}{5}$	>	$\frac{1}{5}$
$\frac{3}{4}$	>	$\frac{1}{4}$
$\frac{7}{10}$	<	$\frac{9}{10}$

### Section 5

Write the following decimals in words:

$$3.4 = \text{three point four}$$

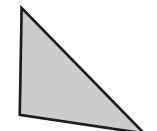
$$4.9 = \text{four point nine}$$

$$0.6 = \text{nought point six/ zero point six}$$

$$2.2 = \text{two point two}$$

### Section 7

Write regular and irregular by the matching shape.



regular

irregular

### Section 6

Complete the table to convert between millilitres and litres.

Millilitres	Litres
250 ml	0.25l
3000ml	3l
500 ml	0.5l

### Section 8

Here is a table showing the favourite colours of children in a class.

Colour	Number
Blue	12
Orange	3
Pink	11
Green	6

What is the difference between the number of children who chose the most favourite colour and the least favourite colour?

9

# Year 5 Maths Activity Mat

(2)

## Section 1

Circle the numbers where 4 is in the thousands place:

94 735    83 492    41 854

54 467    94 578    25 451

74 501    50 892    94 410

## Section 3

Calculate the following in your head:

$$3.4 \times 100 = \boxed{\phantom{000}}$$

$$1.09 \times 100 = \boxed{\phantom{000}}$$

$$450 \div 100 = \boxed{\phantom{00}}$$

$$2330 \div 100 = \boxed{\phantom{00}}$$

## Section 5

Write the following decimals in words:

$$4.56 = \boxed{\phantom{000}}$$

$$0.03 = \boxed{\phantom{000}}$$

$$9.17 = \boxed{\phantom{000}}$$

$$5.55 = \boxed{\phantom{000}}$$

## Section 7

What is the common name of a regular quadrilateral? Draw one.

## Section 2

Calculate the following in your head:

$$43 + 29 = \boxed{\phantom{00}}$$

$$17 + 66 = \boxed{\phantom{00}}$$

$$85 - 46 = \boxed{\phantom{00}}$$

$$91 - 34 = \boxed{\phantom{00}}$$

## Section 4

Use the  $<$ ,  $>$  or  $=$  signs to compare these fractions:

$\frac{3}{5}$	$<$	$\frac{8}{10}$
$\frac{1}{4}$	$=$	$\frac{3}{12}$
$\frac{7}{8}$		$\frac{11}{16}$

## Section 6

Complete the table to convert between millilitres and litres.

Millilitres	Litres
780ml	
	8l
1070ml	

## Section 8

Here is a table showing the favourite colours of children in a school.

Colour	Number
Blue	42
Orange	14
Pink	29
Green	21

What is the difference between the number of children who chose the most favourite colour and the least favourite colour?

## Year 5 Maths Activity Mat: 2

### Answers

#### Section 1

Circle the numbers where 4 is in the thousands place:

94 735    83 492    41 854

54 467    94 578    25 451

74 501    50 892    94 410

#### Section 2

Calculate the following in your head:

$$43 + 29 = \boxed{72}$$

$$17 + 66 = \boxed{83}$$

$$85 - 46 = \boxed{39}$$

$$91 - 34 = \boxed{57}$$

#### Section 3

Calculate the following in your head:

$$3.4 \times 100 = \boxed{340}$$

$$1.09 \times 100 = \boxed{109}$$

$$450 \div 100 = \boxed{4.5}$$

$$2330 \div 100 = \boxed{23.3}$$

#### Section 5

Write the following decimals in words:

$$4.56 = \boxed{\text{four point five six}}$$

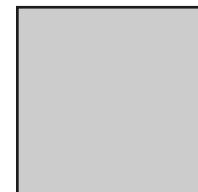
$$0.03 = \boxed{\text{nought point nought three /zero point zero three (or variations)}}$$

$$9.17 = \boxed{\text{nine point one seven}}$$

$$5.55 = \boxed{\text{five point five five}}$$

#### Section 7

What is the common name of a regular quadrilateral? Draw one.



square

#### Section 4

Use the  $<$ ,  $>$  or  $=$  signs to compare these fractions:

$\frac{3}{5}$	$<$	$\frac{8}{10}$
$\frac{1}{4}$	$=$	$\frac{3}{12}$
$\frac{7}{8}$	$>$	$\frac{11}{16}$

#### Section 6

Complete the table to convert between millilitres and litres.

Millilitres	Litres
780ml	<b>0.78l</b>
<b>8000ml</b>	8l
1070ml	<b>1.07ml</b>

#### Section 8

Here is a table showing the favourite colours of children in a school.

Colour	Number
Blue	42
Orange	14
Pink	29
Green	21

What is the difference between the number of children who chose the most favourite colour and the least favourite colour?

28

# Year 5 Maths Activity Mat

## Section 1

Circle the numbers where the thousands digit is half the tens digit.

33 769    21 442    88 943  
81 729    95 802

Now write 3 of your own that meet the criterion.

## Section 2

Explain how you would calculate these answers in your head.

$43 + 29$  and  $85 - 46$

.....  
.....  
.....

## Section 3

Calculate:

$$0.34 \times 1000 = \boxed{\phantom{000}}$$

$$10.09 \times 1000 = \boxed{\phantom{000}}$$

$$456 \div 1000 = \boxed{\phantom{000}}$$

$$2303 \div 1000 = \boxed{\phantom{000}}$$

## Section 5

Write the following decimals in words:

$$54.02 = \boxed{\phantom{000}}$$

$$14.14 = \boxed{\phantom{000}}$$

$$30.56 = \boxed{\phantom{000}}$$

## Section 7

Draw and name a regular quadrilateral and an irregular quadrilateral.

## Section 4

Use the  $<$ ,  $>$  or  $=$  signs to compare these fractions:

$\frac{2}{5}$	$\boxed{\phantom{00}}$	$\frac{1}{4}$
$\frac{5}{6}$	$\boxed{\phantom{00}}$	$\frac{2}{3}$
$\frac{3}{10}$	$\boxed{\phantom{00}}$	$\frac{9}{30}$

## Section 6

A drinks company makes 3 sizes of drink. The smallest bottle is a quarter the size of the largest bottle. The other bottle is 75% the size of the largest bottle and contains 750 ml. What are the sizes of the other bottles in litres?

## Section 8

Here is a table showing the favourite colours of children in a school.

Colour	Number
Blue	84
Orange	28
Pink	54
Green	34

What percentage of children chose the most favourite colour?

## Year 5 Maths Activity Mat: 2

### Answers

#### Section 1

Circle the numbers where the thousands digit is half the tens digit.

(33 769) 21 442 88 943  
(81 729) 95 802

Now write 3 of your own that meet the criterion.

Open ended e.g.  
44 680, 24 988, 11 121

#### Section 2

Explain how you would calculate these answers in your head.

43 + 29 and 85 - 46

Open ended:

E.g. 43 + 30 - 1, 85 - 45 - 1

#### Section 3

Calculate:

$$0.34 \times 1000 = 340$$

$$10.09 \times 1000 = 10 090$$

$$456 \div 1000 = 0.456$$

$$2303 \div 1000 = 2.303$$

#### Section 5

Write the following decimals in words:

54.02 = fifty four point zero two.

14.14 = fourteen point one four.

30.56 = thirty point five six.

#### Section 7

Draw and name a regular quadrilateral and an irregular quadrilateral.

**Regular:** square

**Irregular:** rectangle, trapezium, rhombus, parallelogram, kite or irregular quadrilateral.

#### Section 6

A drinks company makes 3 sizes of drink. The smallest bottle is a quarter the size of the largest bottle. The other bottle is 75% the size of the largest bottle and contains 750 ml. What are the sizes of the other bottles in litres?

0.25l and 1l

#### Section 8

Here is a table showing the favourite colours of children in a school.

Colour	Number
Blue	84
Orange	28
Pink	54
Green	34

What percentage of children chose the most favourite colour?

42%

# Year 5 Maths Activity Mat

## Section 1

Count forwards in 10s.

9			
---	--	--	--

82			
----	--	--	--

Count forwards in 100s.

82			
----	--	--	--

726			
-----	--	--	--

## Section 2

Circle the prime numbers:

3

7

4

8

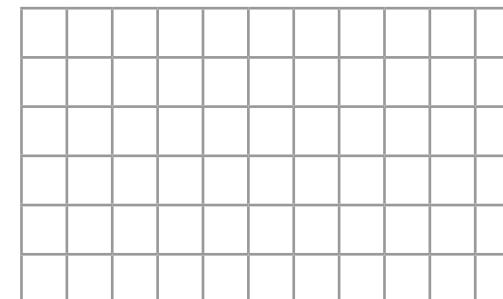
10

## Section 6

Amelia walks to school.  
It takes her 25 minutes.  
She has to arrive by  
8.15am. What time  
should she leave?

## Section 7

On this grid, draw a rectangle where  
the longer side is twice the length of the  
shorter side.



## Section 3

Calculate:

$$3 \times 6 = \boxed{\phantom{00}}$$

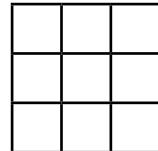
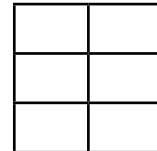
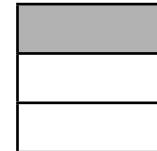
$$5 \times 7 = \boxed{\phantom{00}}$$

$$4 \times 8 = \boxed{\phantom{00}}$$

$$7 \times 10 = \boxed{\phantom{00}}$$

## Section 4

Shade the following shapes so that the same fraction is shaded in all three and write the fraction that they represent:



## Section 5

Round the following numbers to the nearest whole number:

$$3.1 = \boxed{\phantom{00}}$$

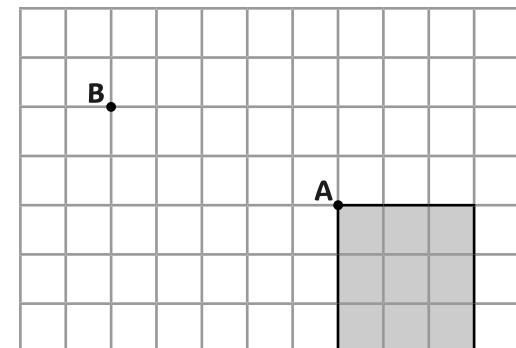
$$7.5 = \boxed{\phantom{00}}$$

$$12.9 = \boxed{\phantom{00}}$$

$$19.4 = \boxed{\phantom{00}}$$

## Section 8

Translate this shape from point A to point B:



## Year 5 Maths Activity Mat: 3

### Answers

#### Section 1

Count forwards in 10s.

9	19	29	39
---	----	----	----

82	92	102	112
----	----	-----	-----

Count forwards in 100s.

82	182	282	382
----	-----	-----	-----

726	826	926	1026
-----	-----	-----	------

#### Section 2

Circle the prime numbers:

3

7

4

8

10

#### Section 6

Amelia walks to school.  
It takes her 25 minutes.  
She has to arrive by  
8.15am. What time  
should she leave?

7.50am

#### Section 3

Calculate:

$$3 \times 6 = 18$$

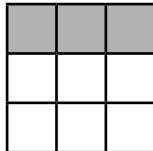
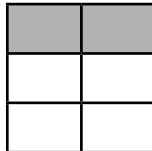
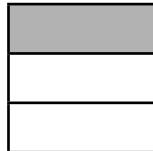
$$5 \times 7 = 35$$

$$4 \times 8 = 32$$

$$7 \times 10 = 70$$

#### Section 4

Shade the following shapes so that the same fraction is shaded in all three and write the fraction that they represent:



$\frac{1}{3}$

$\frac{2}{6}$

$\frac{3}{9}$

#### Section 5

Round the following numbers to the nearest whole number:

$$3.1 = 3$$

$$7.5 = 8$$

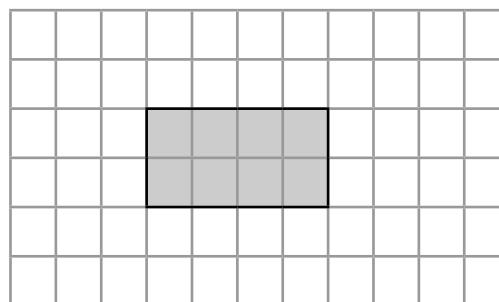
$$12.9 = 13$$

$$19.4 = 19$$

#### Section 7

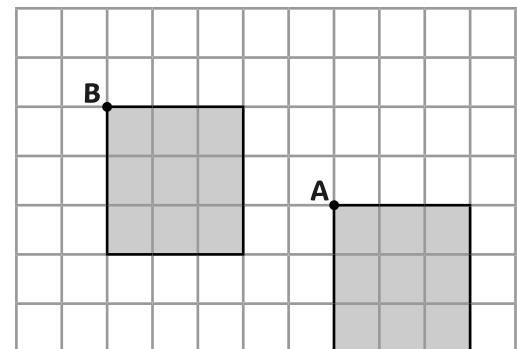
On this grid, draw a rectangle where the longer side is twice the length of the shorter side.

Example:



#### Section 8

Translate this shape from point A to point B:



# Year 5 Maths Activity Mat

## Section 1

Continue these linear sequences:

4071	5071			
------	------	--	--	--

43 002	42 002			
--------	--------	--	--	--

71 112	81 112			
--------	--------	--	--	--

917 823	907 823			
---------	---------	--	--	--

## Section 3

Calculate:

$$3 \times 60 = \boxed{\phantom{00}}$$

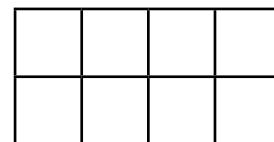
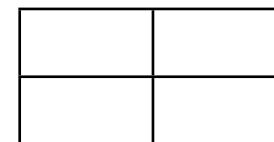
$$50 \times 7 = \boxed{\phantom{00}}$$

$$40 \times 80 = \boxed{\phantom{00}}$$

$$70 \times 110 = \boxed{\phantom{00}}$$

## Section 4

Shade the following rectangles so the same fraction is shaded in both and write the fraction they represent.



## Section 2

Circle the prime numbers:

4	7
13	16
19	15
10	17

## Section 6

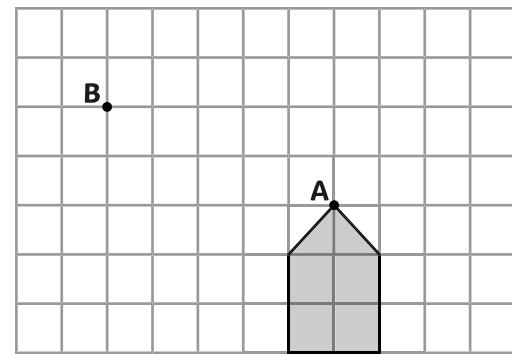
Amelia goes to see a film. The film lasts 108 minutes. It starts at 13:20. What time will it finish?

## Section 7

Use a ruler to draw a rectangle where the longer side is twice the length of the shorter side.

## Section 8

Translate this shape from point A to point B:



# Year 5 Maths Activity Mat: 3

## Answers

### Section 1

Continue these linear sequences:

4071	5071	6071	7071	8071
------	------	------	------	------

43 002	42 002	41 002	40 002	39 002
--------	--------	--------	--------	--------

71 112	81 112	91 112	101 112	111 112
--------	--------	--------	---------	---------

917 823	907 823	897 823	887 823	877 823
---------	---------	---------	---------	---------

### Section 2

Circle the prime numbers:

- 4
- 7
- 19
- 13
- 16
- 15
- 10
- 17

### Section 6

Amelia goes to see a film. The film lasts 108 minutes. It starts at 13:20. What time will it finish?

15:08

### Section 3

Calculate:

$$3 \times 60 = 180$$

$$50 \times 7 = 350$$

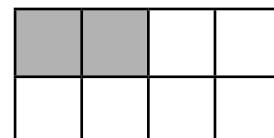
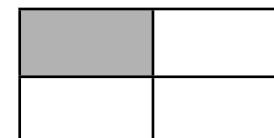
$$40 \times 80 = 3200$$

$$70 \times 110 = 7700$$

### Section 4

Shade the following rectangles so the same fraction is shaded in both and write the fraction they represent.

Example:



$\frac{1}{4}$

$\frac{2}{8}$

### Section 5

Round the following numbers to the nearest tenth:

3.05 = 3.1

6.78 = 6.8

18.83 = 18.8

25.95 = 26

### Section 7

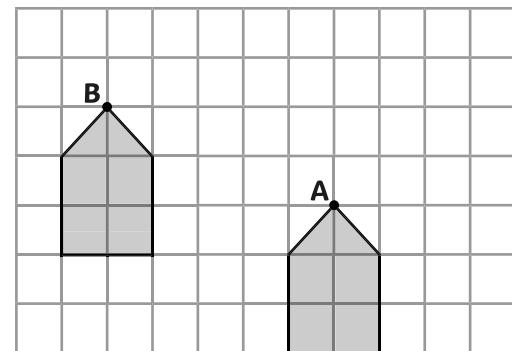
Use a ruler to draw a rectangle where the longer side is twice the length of the shorter side.

Example:



### Section 8

Translate this shape from point A to point B:



# Year 5 Maths Activity Mat

## Section 1

Complete these linear sequences:

4 892				1 892	
-------	--	--	--	-------	--

34 901		36 901		
--------	--	--------	--	--

	90 472				120 472
--	--------	--	--	--	---------

422 442					382 442
---------	--	--	--	--	---------

## Section 3

Calculate:

$$0.3 \times 6 = \boxed{\phantom{00}}$$

$$5 \times £0.70 = \boxed{\phantom{00}}$$

$$4 \times 0.8 = \boxed{\phantom{00}}$$

$$7 \times 0.11 = \boxed{\phantom{00}}$$

## Section 4

Draw 2 shapes the same size. Divide each shape into a different number of equal parts to show 2 different equivalent fractions.

## Section 2

Write all the prime numbers between 0 and 20:

## Section 6

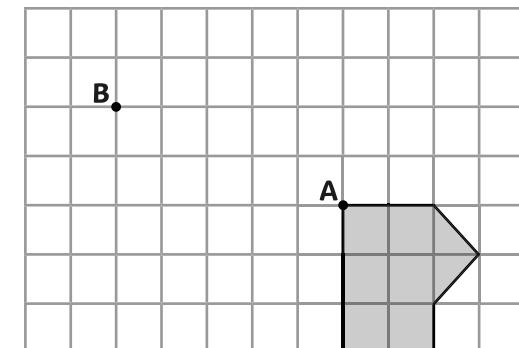
Amelia's school starts at 8.40am and finishes at 3.25pm. Lunch is 50 minutes and there is a morning break of 20 minutes. The rest of the day are lessons. For how long are the lessons?

## Section 7

Use a ruler to draw a rectangle where the longer side is twice the length of the shorter side, and the area is  $4.5\text{cm}^2$ .

## Section 8

Translate this shape from point A to point B:



## Year 5 Maths Activity Mat: 3

### Answers

#### Section 1

Complete these linear sequences:

4 892	3 892	2 892	1 892	892
-------	-------	-------	-------	-----

34 901	35 901	36 901	37 901	38 901
--------	--------	--------	--------	--------

80 472	90 472	100 472	110 472	120 472
--------	--------	---------	---------	---------

422 442	412 442	402 442	392 442	382 442
---------	---------	---------	---------	---------

#### Section 2

Write all the prime numbers between 0 and 20:

2, 3, 5, 7, 11, 13, 17, 19

#### Section 6

Amelia's school starts at 8.40am and finishes at 3.25pm. Lunch is 50 minutes and there is a morning break of 20 minutes. The rest of the day are lessons. For how long are the lessons?

5 hours 35 minutes

#### Section 3

Calculate:

$$0.3 \times 6 = 1.8$$

$$5 \times £0.70 = £3.50$$

$$4 \times 0.8 = 3.2$$

$$7 \times 0.11 = 0.77$$

#### Section 4

Draw 2 shapes the same size. Divide each shape into a different number of equal parts to show 2 different equivalent fractions.

Accept any reasonable answer.

#### Section 5

Connor weighs a bag of rice. The bag weighs 0.8kg to the nearest 100g. How much could the bag weigh?

0.75kg to 0.849kg

#### Section 7

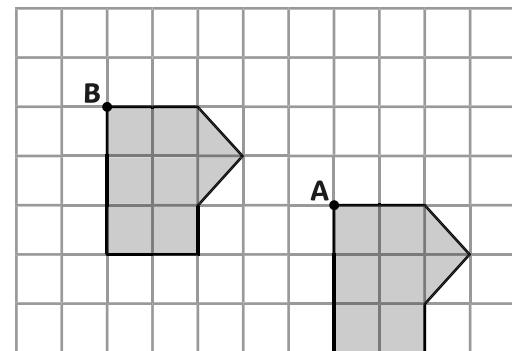
Use a ruler to draw a rectangle where the longer side is twice the length of the shorter side, and the area is  $4.5\text{cm}^2$ .

3cm x 1.5 cm



#### Section 8

Translate this shape from point A to point B:



# Maths Activity Mat

## Section 1

Complete this number line:

	-9					-4					1	
--	----	--	--	--	--	----	--	--	--	--	---	--

## Section 2

Each shelf of a bookcase has about 80 books. There are 6 shelves. To the nearest 100, how many books are there in the bookcase?

**ANSWER**

## Section 3

**Calculate:**

$$\begin{array}{r} 7 & 2 & 3 \\ + & 5 & 1 & 8 \\ \hline \end{array} \quad \begin{array}{r} 6 & 0 & 3 \\ - & 1 & 6 & 7 \\ \hline \end{array}$$

# **Section 4**

Order the following fractions from smallest to largest:

$$\frac{5}{8} \quad \frac{3}{8} \quad \frac{7}{8} \quad \frac{1}{8}$$

smallest		largest	

## Section 5

Adjacent squares are added together to give the number above. Complete the number wall.



## Section 6

1 litre  $\approx$  1.75 pints

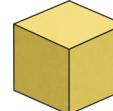
### Complete the following:

$$2 \text{ litres} \approx \boxed{\phantom{00}} \text{ pints}$$

litres  $\approx$  17.5 pints

Section 8

Write the name of  
these shapes.



## Section 8

A class count the number of children who cycle to school each day.

<b>Week</b>	<b>Number of children who cycled to school</b>
Monday	8
Tuesday	12
Wednesday	3
Thursday	11
Friday	9

Which day did most children cycle to school?

**ANSWER**





## Maths Activity Mat: 4

Answers

### Section 1

The temperature is 3°C. Two hours earlier, the temperature was 6°C colder.  
What was the temperature two hours earlier?

-3°C

### Section 2

A library has 14 bookcases. Each bookcase has 5 shelves. A librarian estimates there are 60 books on each shelf.

How many books are there in the library, rounded to the nearest one thousand?

4000

### Section 3

Complete these calculations:

$$\begin{array}{r} 4 & 9 & 0 \\ + & 3 & 5 & 8 \\ \hline 8 & 4 & 8 \end{array}$$

$$\begin{array}{r} 6 & 4 & 7 \\ - & 4 & 4 & 1 \\ \hline 2 & 0 & 6 \end{array}$$

### Section 4

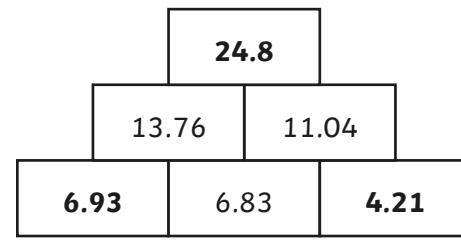
Order the following fractions from smallest to largest:

$$\frac{1}{4}, \frac{3}{8}, \frac{3}{16}, \frac{1}{8}$$

$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{3}{8}$
smallest			largest

### Section 5

Adjacent squares are added together to give the number above.  
Complete the number wall.



### Section 6

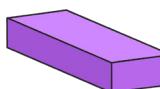
1 gallon  $\approx$  4.5 litres

A car's petrol tank has a capacity of 50 litres. How many gallons is the capacity of the petrol tank to the nearest gallon.

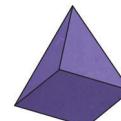
11 gallons

### Section 7

Write the name of these shapes.



cuboid



square-based pyramid

### Section 8

A class count the number of children who cycle to school each day.

Week	Number of children who cycled to school
Monday	8
Tuesday	12
Wednesday	3
Thursday	11
Friday	9

What is the highest number of children who could have cycled every day?

3

## Section 1

$$6 + (-5) =$$

$$-3 + 7 = \boxed{ }$$

$$1 - (-5) =$$

## Section 2

A library is on 3 floors. On each floor, there are 21 bookcases. Each bookcase has 6 shelves. A librarian estimates there are 75 books on each shelf.

How many books are there in the library, rounded to the nearest one thousand?

ANSWER

# Section 3

Complete these calculations

$$\begin{array}{r}
 \boxed{\phantom{0}} & 2 & 9 \\
 & 9 & 8 & \boxed{\phantom{0}} \\
 + & 3 & \boxed{\phantom{0}} & 7 \\
 \hline
 2 & 1 & 5 & 8
 \end{array}$$

## Section 4

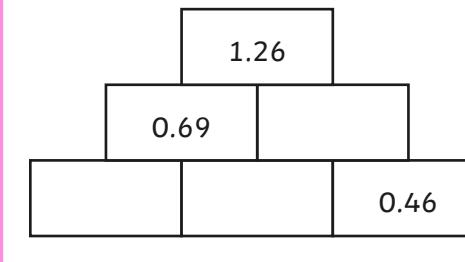
Order the following fractions from smallest to largest:

$$\frac{10}{27} \quad \frac{1}{3} \quad \frac{2}{9} \quad \frac{15}{48}$$

--	--	--	--

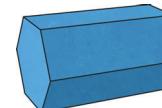
## Section 5

Adjacent squares are added together to give the number above. Complete the number wall.



## Section 7

Write the name of  
these shapes.



## Section 8

A class count the number of children who cycle to school each day.

<b>Week</b>	<b>Number of children who cycled to school</b>
Monday	8
Tuesday	12
Wednesday	3
Thursday	11
Friday	9

No child cycled every day. What is the lowest number of children who could have cycled at least once?



## Maths Activity Mat: 4

Answers

### Section 1

$$6 + (-5) = \boxed{1}$$

$$-3 + 7 = \boxed{4}$$

$$1 - (-5) = \boxed{6}$$

### Section 2

A library is on 3 floors. On each floor, there are 21 bookcases. Each bookcase has 6 shelves. A librarian estimates there are 75 books on each shelf.

How many books are there in the library, rounded to the nearest one thousand?

**28 000 books**

### Section 3

Complete these calculations:

$$\begin{array}{r} 8 & 2 & 9 \\ 9 & 8 & \boxed{2} \\ + & 3 & \boxed{4} & 7 \\ \hline & 2 & 1 & 5 & 8 \end{array}$$

### Section 4

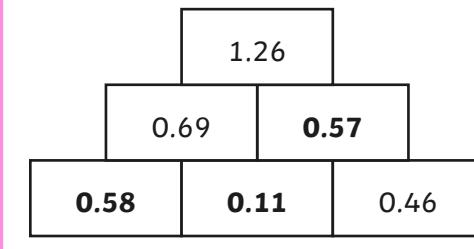
Order the following fractions from smallest to largest:

$$\frac{10}{27}, \frac{1}{3}, \frac{2}{9}, \frac{15}{48}$$

$\frac{2}{9}$	$\frac{15}{48}$	$\frac{1}{3}$	$\frac{10}{27}$
smallest			largest

### Section 5

Adjacent squares are added together to give the number above. Complete the number wall.



### Section 6

1 gallon  $\approx$  4.5 litres

1 litre  $\approx$  1.75 pints

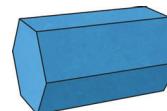
How many pints are there in 1 gallon?

Write the answer to the nearest whole pint.

**8 pints in 1 gallon**  
 $(4.5 \times 1.75 = 7.875)$

### Section 7

Write the name of these shapes.



hexagonal prism



ovoid

### Section 8

A class count the number of children who cycle to school each day.

Week	Number of children who cycled to school
Monday	8
Tuesday	12
Wednesday	3
Thursday	11
Friday	9

No child cycled every day. What is the lowest number of children who could have cycled at least once?

**3**

# Year 5 Maths Activity Mat

5

## Section 1

Write these Roman Numerals as numbers.

$$\text{XXIX} \rightarrow \boxed{\phantom{00}}$$

$$\text{XCVI} \rightarrow \boxed{\phantom{00}}$$

## Section 4

Calculate:

$$\frac{1}{6} + \frac{1}{6} = \boxed{\phantom{00}}$$

$$\frac{9}{10} - \frac{3}{10} = \boxed{\phantom{00}}$$

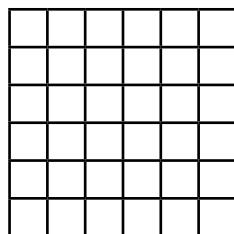
## Section 6

A tin of baked beans weighs 510g. How much do two tins weigh, in kilograms?

$$\boxed{\phantom{00}}$$

## Section 2

What square number does this represent?



$$\boxed{\phantom{00}}$$

## Section 5

Write the following fractions as decimals:

$$\frac{3}{10} = \boxed{\phantom{00}}$$

$$\frac{5}{10} = \boxed{\phantom{00}}$$

$$\frac{8}{10} = \boxed{\phantom{00}}$$

## Section 7

Identify these angles:



## Section 3

Calculate:

$$193 \times 4 = \boxed{\phantom{000}}$$

$$612 \div 2 = \boxed{\phantom{00}}$$

## Section 8

Here is a school timetable.

Register	08:50
Assembly	09:00
Lesson 1	09:25
Break	10:25
Lesson 2	10:40
Lunch	12:00
Lesson 3	12:50
Lesson 4	14:00
End of day	15:15

Which is the longest lesson?

$$\boxed{\phantom{000}}$$

How long is break and lunch combined?

$$\boxed{\phantom{000}}$$

# Year 5 Maths Activity Mat: 5

## Answers

### Section 1

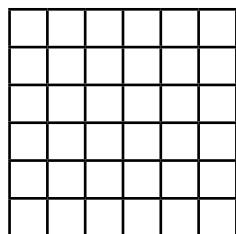
Write these Roman Numerals as numbers.

$$\text{XXIX} \rightarrow 29$$

$$\text{XCVI} \rightarrow 96$$

### Section 2

What square number does this represent?



36

### Section 3

Calculate:

$$193 \times 4 = 772$$

$$612 \div 2 = 306$$

### Section 4

Calculate:

$$\frac{1}{6} + \frac{1}{6} = \frac{2}{6} \text{ or } \frac{1}{3}$$

$$\frac{9}{10} - \frac{3}{10} = \frac{6}{10} \text{ or } \frac{3}{5}$$

### Section 5

Write the following fractions as decimals:

$$\frac{3}{10} = 0.3$$

$$\frac{5}{10} = 0.5$$

$$\frac{8}{10} = 0.8$$

### Section 6

A tin of baked beans weighs 510g. How much do two tins weigh, in kilograms?

1.02kg

### Section 8

Here is a school timetable.

Register	08:50
Assembly	09:00
Lesson 1	09:25
Break	10:25
Lesson 2	10:40
Lunch	12:00
Lesson 3	12:50
Lesson 4	14:00
End of day	15:15

Which is the longest lesson?

Lesson 2



acute



reflex

How long is break and lunch combined?

1 hour 5 minutes or 65 minutes

# Year 5 Maths Activity Mat

## Section 1

Write these Roman Numerals as numbers.

CCL →

CMLXV →

## Section 4

Calculate:

$$\frac{1}{4} + \frac{3}{8} = \boxed{\phantom{00}}$$

$$\frac{2}{5} - \frac{1}{10} = \boxed{\phantom{00}}$$

## Section 6

A tin of baked beans weighs 510g. How much do eight tins weigh, in kilograms?

## Section 2

Write 3 square numbers in this way:

$$2 \times 2 = 4$$

## Section 5

Write the following fractions as percentages:

$$\frac{7}{100} = \boxed{\phantom{00}}\%$$

$$\frac{77}{100} = \boxed{\phantom{00}}\%$$

$$\frac{23}{100} = \boxed{\phantom{00}}\%$$

## Section 3

Calculate:

$$348 \times 14 = \boxed{\phantom{000}}$$

$$2316 \div 6 = \boxed{\phantom{000}}$$

## Section 8

Here is a school timetable.

Register	08:50
Assembly	09:00
Lesson 1	09:25
Break	10:25
Lesson 2	10:40
Lunch	12:00
Lesson 3	12:50
Lesson 4	14:00
End of day	15:15

How long is the school day?

How long are all the lessons when added up together?

# Year 5 Maths Activity Mat: 5

## Answers

### Section 1

Write these Roman Numerals as numbers.

$$\text{CCL} \rightarrow 250$$

$$\text{CMLXV} \rightarrow 965$$

### Section 4

Calculate:

$$\frac{1}{4} + \frac{3}{8} = \frac{5}{8}$$

$$\frac{2}{5} - \frac{1}{10} = \frac{3}{10}$$

### Section 6

A tin of baked beans weighs 510g. How much do eight tins weigh, in kilograms?

$$4.08 \text{ kg}$$

### Section 2

Write 3 square numbers in this way:

$$2 \times 2 = 4$$

Various answers. E.g.

$$3 \times 3 = 9, 4 \times 4 = 16, 5 \times 5 = 25$$

### Section 5

Write the following fractions as percentages:

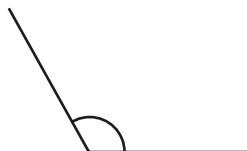
$$\frac{7}{100} = 7\%$$

$$\frac{77}{100} = 77\%$$

$$\frac{23}{100} = 23\%$$

### Section 7

Draw and label an obtuse angle and a reflex angle.



obtuse



reflex

### Section 3

Calculate:

$$348 \times 14 = 4872$$

$$2316 \div 6 = 386$$

### Section 8

Here is a school timetable.

Register	08:50
Assembly	09:00
Lesson 1	09:25
Break	10:25
Lesson 2	10:40
Lunch	12:00
Lesson 3	12:50
Lesson 4	14:00
End of day	15:15

How long is the school day?

$$6 \text{ hours } 25 \text{ minutes}$$

How long are all the lessons when added up together?

$$4 \text{ hours } 45 \text{ minutes}$$

# Year 5 Maths Activity Mat

## Section 1

Perform these calculations with Roman numerals without converting to numbers. Give the answers as a Roman numeral.

$CCLX + CXXV = \boxed{\hspace{2cm}}$

$CIX - LXXVIII = \boxed{\hspace{2cm}}$

## Section 4

Calculate, writing your answer in the lowest form possible.

$\frac{1}{5} + \frac{7}{15} = \boxed{\hspace{2cm}}$

$\frac{3}{4} - \frac{3}{8} = \boxed{\hspace{2cm}}$

## Section 6

A tin of baked beans weighs 510 g. A box of tins must not weigh more than 8kg. What is the maximum number of tins that can be placed in one box?

## Section 2

Write all the square numbers from  $1 \times 1$  to  $12 \times 12$ .

Look at the odd and even numbers. Is there a pattern?  
.....

## Section 5

Write the following fractions as percentages:

$\frac{7}{20} = \boxed{\hspace{2cm}}$

$\frac{4}{25} = \boxed{\hspace{2cm}}$

## Section 7

Draw a quadrilateral with 2 obtuse angles.

## Section 3

Complete these calculations:

$47 \boxed{\hspace{1cm}} \times \boxed{\hspace{1cm}} 2 = 10\,516$

$18 \boxed{\hspace{1cm}} 6 \div 1 \boxed{\hspace{1cm}} = 153$

## Section 8

Here is a school timetable.

Register	08:50
Assembly	09:00
Lesson 1	09:25
Break	10:25
Lesson 2	10:40
Lunch	12:00
Lesson 3	12:50
Lesson 4	14:00
End of day	15:15

What is the difference between the length of this school day and your school day?

If all the days are the same, how long are all the lessons in one week?

# Year 5 Maths Activity Mat: 5

## Answers

### Section 1

Perform these calculations with Roman numerals without converting to numbers. Give the answers as a Roman numeral.

$$CCLX + CXXV = \boxed{CCCLXXXV}$$

$$CIX - LXXVIII = \boxed{XXXI}$$

### Section 2

Write all the square numbers from  $1 \times 1$  to  $12 \times 12$ .

1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144

Look at the odd and even numbers. Is there a pattern?

odd, even, odd, even

### Section 3

Complete these calculations:

$$47 \boxed{8} \times \boxed{2} 2 = 10\,516$$

$$18 \boxed{3} 6 \div 1 \boxed{2} = 153$$

### Section 4

Calculate, writing your answer in the lowest form possible.

$$\frac{1}{5} + \frac{7}{15} = \boxed{\frac{10}{15} \text{ or } \frac{2}{3}}$$

$$\frac{3}{4} - \frac{3}{8} = \boxed{\frac{3}{8}}$$

### Section 5

Write the following fractions as percentages:

$$\frac{7}{20} = \boxed{35\%}$$

$$\frac{4}{25} = \boxed{16\%}$$

### Section 6

A tin of baked beans weighs 510 g. A box of tins must not weigh more than 8kg. What is the maximum number of tins that can be placed in one box?

15 tins (weighs 7.65kg)

### Section 7

Draw a quadrilateral with 2 obtuse angles.

Example:



### Section 8

Here is a school timetable.

Register	08:50
Assembly	09:00
Lesson 1	09:25
Break	10:25
Lesson 2	10:40
Lunch	12:00
Lesson 3	12:50
Lesson 4	14:00
End of day	15:15

What is the difference between the length of this school day and your school day?

Various Answers

If all the days are the same, how long are all the lessons in one week?

23 hours 45 minutes

# Year 5 Maths Activity Mat

## Section 1

I am a 2-digit number.

I am even.

I have three more tens than ones.

The sum of my digits is 11.

What number am I?

## Section 2

Write the factor pairs of 10.

Write the common factors of 4 and 16.

## Section 3

Three children share 96 marbles. How many do they each receive?

## Section 4

Use this visual representation to calculate:



$$1\frac{1}{3} \times 2 =$$

## Section 5

## Section 6

Match the following:

$\frac{1}{4}$

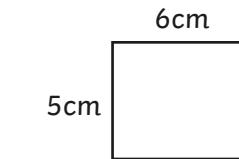
25%

$\frac{3}{4}$

75%

## Section 6

What is the area of this rectangle?

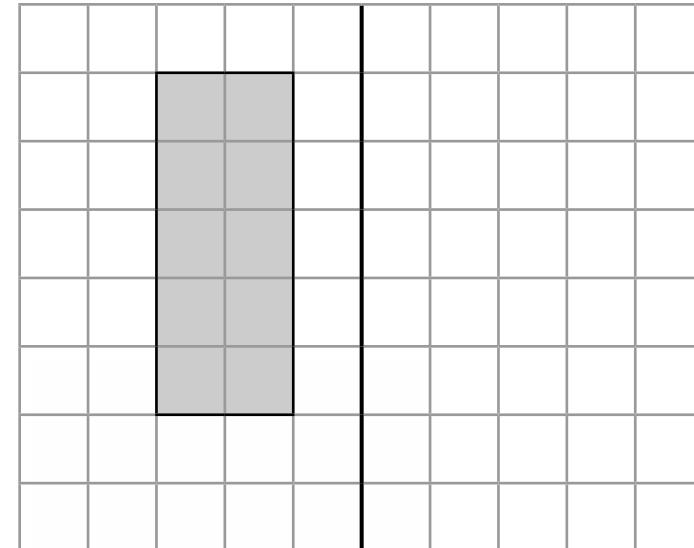



## Section 7

Draw an angle of  $45^\circ$ .

## Section 8

Reflect this shape about the line **AB**.



## Year 5 Maths Activity Mat: 6

### Answers

#### Section 1

I am a 2-digit number.

I am even.

I have three more tens than ones.

The sum of my digits is 11.

What number am I?

74

#### Section 2

Write the factor pairs of 10.

1 x 10, 2 x 5

Write the common factors of 4 and 16.

1, 2, 4

#### Section 3

Three children share 96 marbles. How many do they each receive?

32 marbles

#### Section 4

Use this visual representation to calculate:



$$1\frac{1}{3} \times 2 = 2\frac{2}{3}$$

#### Section 5

#### Section 6

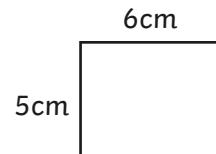
Match the following:

$\frac{1}{4}$  —————— 25%

$\frac{3}{4}$  —————— 75%

#### Section 7

What is the area of this rectangle?

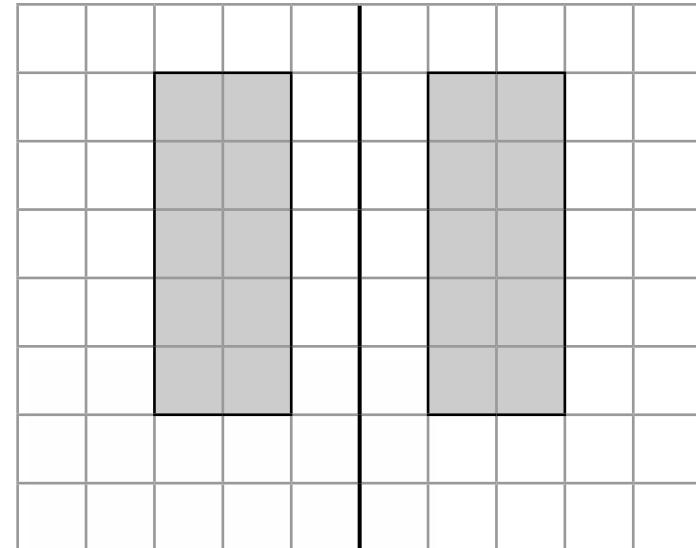
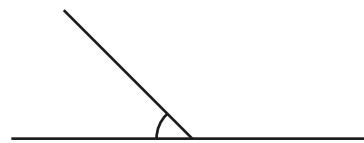


30cm<sup>2</sup>

#### Section 8

#### Section 8

Draw an angle of 45°.



# Year 5 Maths Activity Mat

## Section 1

I am a 3-digit odd number.  
I have the same number of hundreds as ones.  
I have one ten.  
The sum of my digits is 15.  
What number am I?

## Section 2

Write the factor pairs of 24.

Write the common factors of 6 and 18.

## Section 3

Jack is asked to share 9 boxes of 12 pencils between 3 classes. How many pencils does each class receive?

## Section 4

Calculate:

$$2 \frac{1}{4} \times 5 =$$

## Section 5

## Section 6

Match the following:

$$\frac{1}{4}$$

20%

$$\frac{3}{4}$$

25%

$$\frac{1}{5}$$

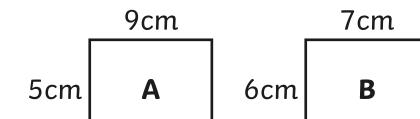
75%

$$\frac{3}{5}$$

60%

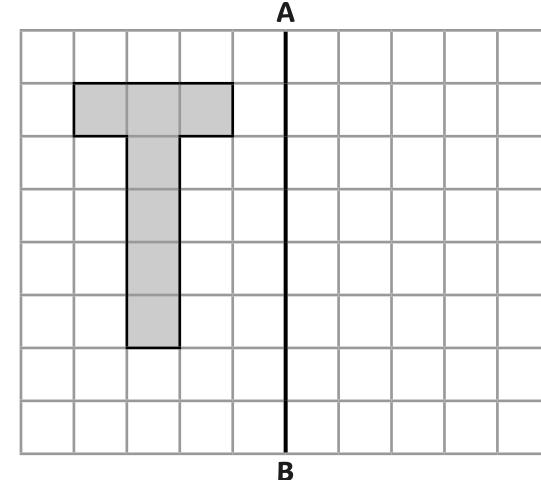
## Section 7

Which rectangle has the smaller area?




## Section 8

Reflect this shape about the line AB.



# Year 5 Maths Activity Mat: 6

## Answers

### Section 1

I am a 3-digit odd number.  
I have the same number of hundreds as ones.  
I have one ten.  
The sum of my digits is 15.  
What number am I?

717

### Section 2

Write the factor pairs of 24.

1 × 24, 2 × 12, 3 × 8, 4 × 6

Write the common factors of 6 and 18.

1, 2, 3, 6

### Section 3

Jack is asked to share 9 boxes of 12 pencils between 3 classes. How many pencils does each class receive?

36 pencils

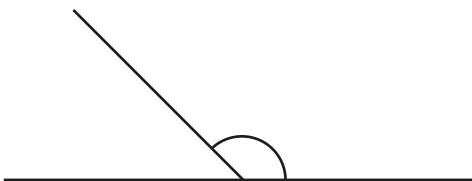
### Section 4

Calculate:

$$2 \frac{1}{4} \times 5 = 11 \frac{1}{4}$$

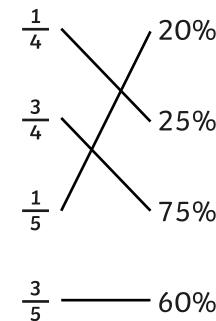
### Section 7

Draw an angle of  $135^\circ$ .



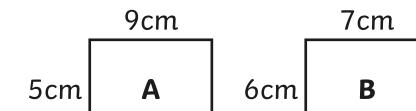
### Section 5

Match the following:



### Section 6

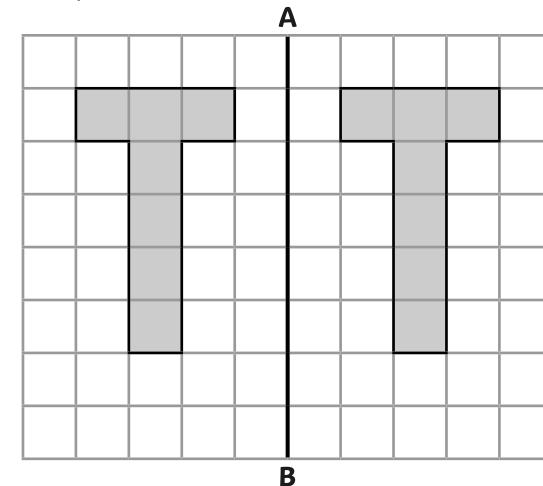
Which rectangle has the smaller area?



B

### Section 8

Reflect this shape about the line AB.



# Year 5 Maths Activity Mat

6

## Section 1

I am a 3-digit even number.  
I have two more ones than hundreds.  
One of my digits has no value.  
My ones digit is two cubed.  
What number am I?

## Section 3

Five children collect all the used pencils from classrooms. There are 132. They share those and another 13 packets of 12 pencils between 8 classrooms. How many pencils does each class receive?

## Section 4

Calculate:

$$\frac{7}{4} \times 3 = \boxed{\phantom{00}}$$

## Section 2

Write the factor pairs of 48.

Write the common factors of 30 and 50.

## Section 7

Draw an angle of  $225^\circ$ .

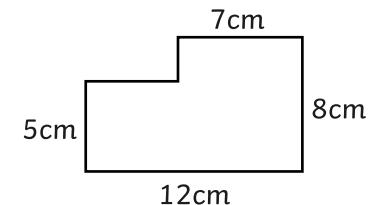
## Section 5

Match the following:

$\frac{1}{5}$	75%
$\frac{3}{4}$	20%
$\frac{3}{8}$	80%
$\frac{4}{5}$	37.5%

## Section 6

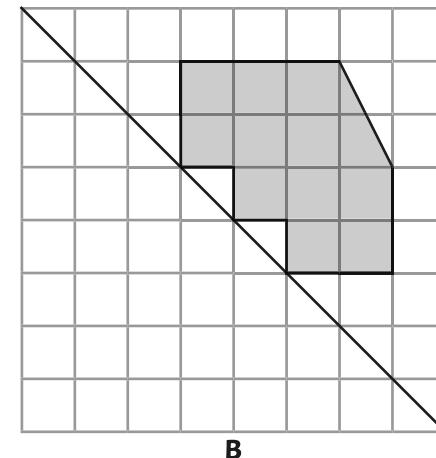
What is the area of this composite rectilinear shape?



## Section 8

Reflect this shape about the line **AB**.

A



B

## Year 5 Maths Activity Mat: 6

### Answers

#### Section 1

I am a 3-digit even number.  
I have two more ones than hundreds.  
One of my digits has no value.  
My ones digit is two cubed.  
What number am I?

608

#### Section 2

Write the factor pairs of 48.

1 × 48, 2 × 24, 3 × 16, 4 × 12, 6 × 8

Write the common factors of 30 and 50.

1, 2, 5, 10

#### Section 3

Five children collect all the used pencils from classrooms. There are 132. They share those and another 13 packets of 12 pencils between 8 classrooms. How many pencils does each class receive?

36 pencils

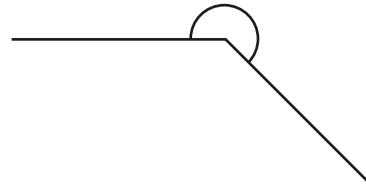
#### Section 4

Calculate:

$$\frac{7}{4} \times 3 = 5\frac{1}{4}$$

#### Section 7

Draw an angle of 225°.



#### Section 5

Match the following:

$\frac{1}{5}$       75%

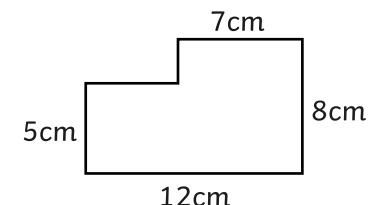
$\frac{3}{4}$       20%

$\frac{3}{8}$       80%

$\frac{4}{5}$       37.5%

#### Section 6

What is the area of this composite rectilinear shape?

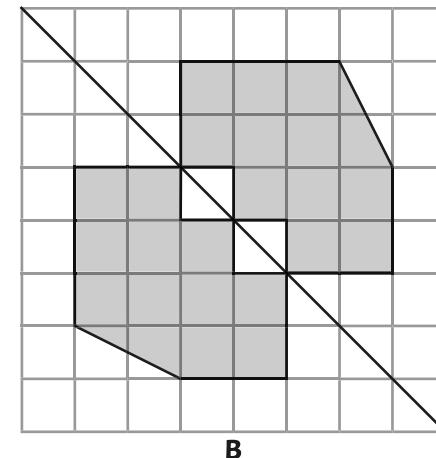


81cm<sup>2</sup>

#### Section 8

Reflect this shape about the line AB.

A



## Order FDP

- 1** Write  $<$ ,  $>$  or  $=$  to complete the statements.

a)  $64\%$   $0.46$

d)  $0.8$   $80\%$

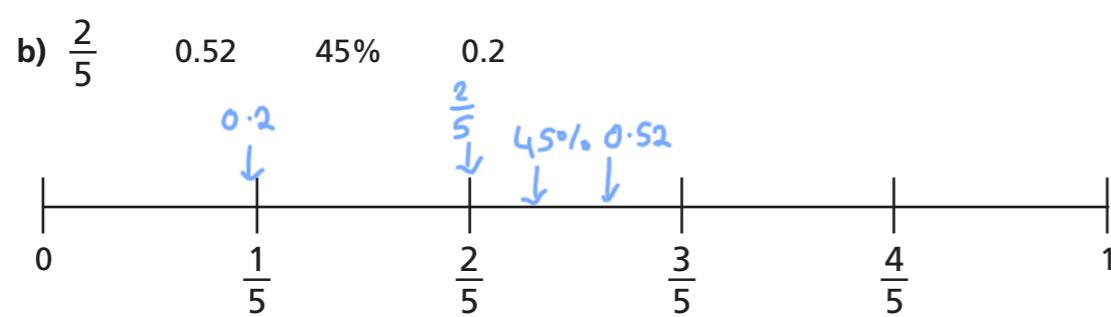
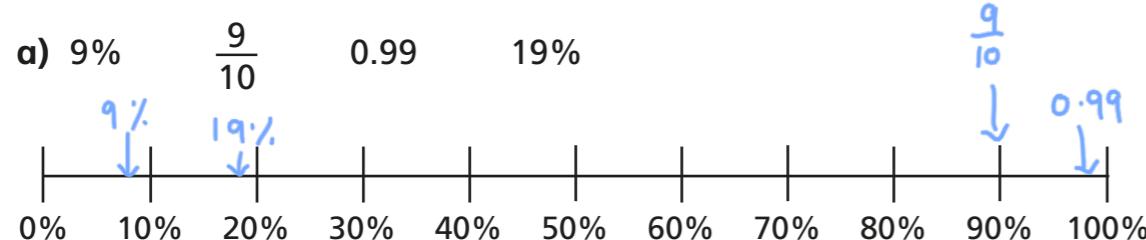
b)  $0.96$   $\frac{97}{100}$

e)  $67\%$   $\frac{7}{10}$

c)  $\frac{3}{5}$   $35\%$

f)  $\frac{7}{20}$   $0.3$

- 2** Draw arrows to estimate the positions of the fractions, decimals and percentages on the number line.



- 3** Write the fractions, decimals and percentages in ascending order.

a)  $\frac{7}{10}$   $\frac{13}{100}$   $21\%$   $0.9$

$\frac{13}{100}, 21\%, \frac{7}{10}, 0.9$

b)  $0.6$   $61\%$   $\frac{37}{50}$   $0.66$

$0.6, 61\%, 0.66, \frac{37}{50}$

c)  $47\%$   $0.89$   $\frac{63}{100}$   $12\%$

$12\%, 47\%, \frac{63}{100}, 0.89$

d) Which part was easiest to order: a), b) or c)? \_\_\_\_\_

Why?

Various answers.

e) Which set was most difficult to order: a), b) or c)? \_\_\_\_\_

Why?

Various answers.

f) Compare answers with a partner.

What is the same and what is different?

4

These fractions, decimals and percentages are in descending order.

99%       $\frac{89}{100}$       0.7            0.5      49%

Tick the fractions, decimals and percentages that could fill the gap.

0.78       51%        $\frac{3}{5}$        0.6        $\frac{4}{10}$

5

Tommy scored  $\frac{40}{50}$  on a Maths test.

Aisha got 78% of the test correct.

Aisha thinks she has done better because 78 is greater than 40

Do you agree with Aisha? No

Explain your answer.

$$\frac{40}{50} = 80\% \quad \text{and} \quad 80\% > 78\% \quad \text{so Tommy did}$$

better.

6

Huan, Nijah and Scott each started with a 1-litre bottle of juice.

Huan drank 0.55 litres.



Nijah drank 59% of her juice.

Scott has  $\frac{4}{10}$  of his juice left.

Who drank the most? Show your working.

Scott drank the most.

Who drank the least? Show your working.

Huan drank the least.

7

a) Use the digit cards to make the statement correct.

1     2     3     4     5     6     7     8     9     10

$$0.3 < \frac{\boxed{4}}{10} < 80\%$$

How many different solutions can you find?

Various answers.

b) Use the digit cards to write a percentage greater than  $\frac{2}{5}$  but less than 75%.

0     2     3     4     6     7

$$\frac{2}{5} < \boxed{0.43} < 0.75$$

How many different percentages can you find?

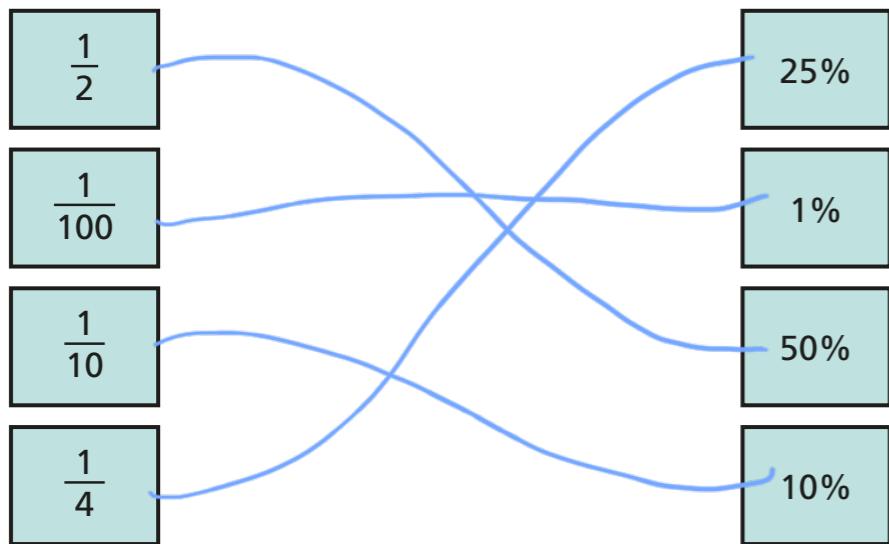
Various answers.

Compare answers with a partner.

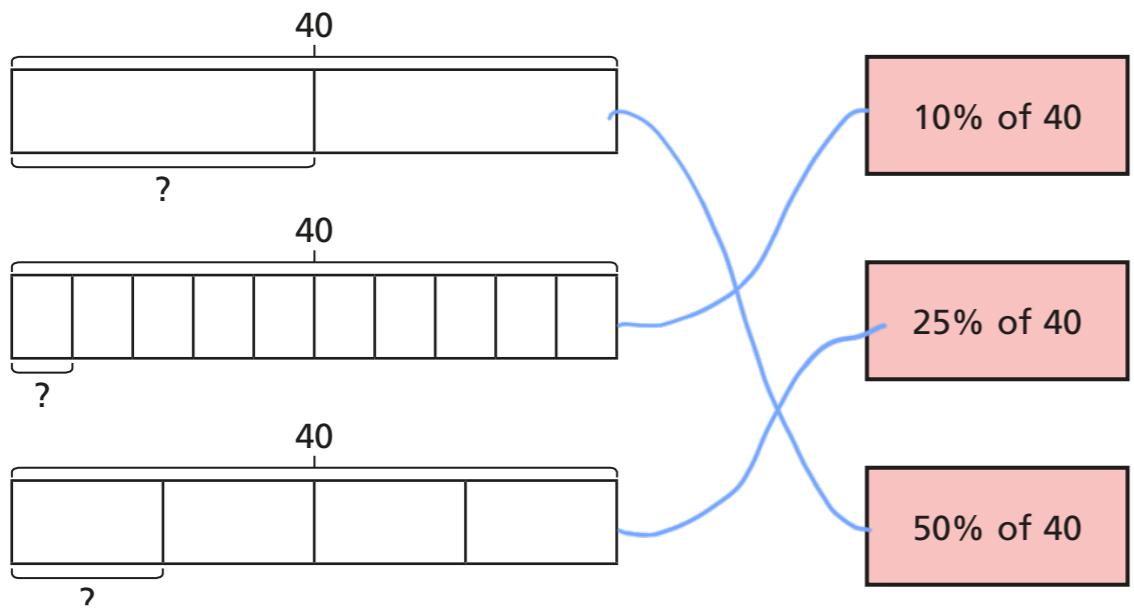


# Percentage of an amount (1)

- 1** Match the equivalent fractions to the percentages.

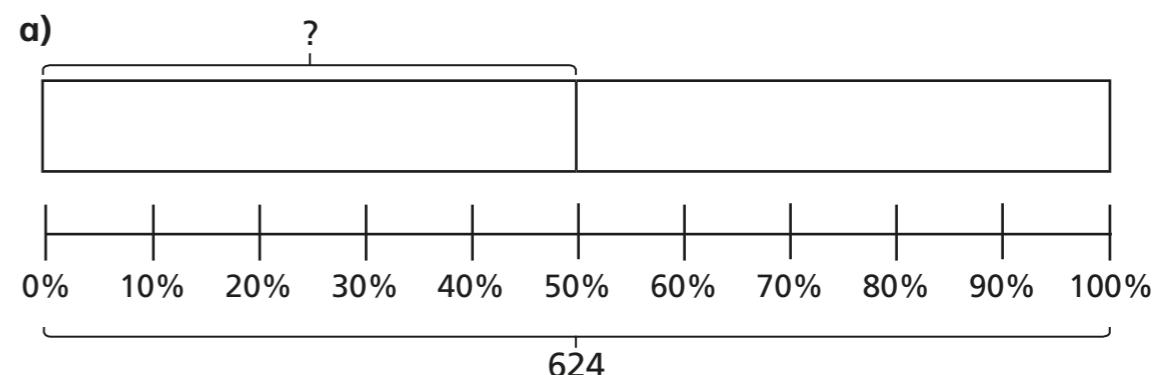


- 2** Match each bar model to the statement it represents.

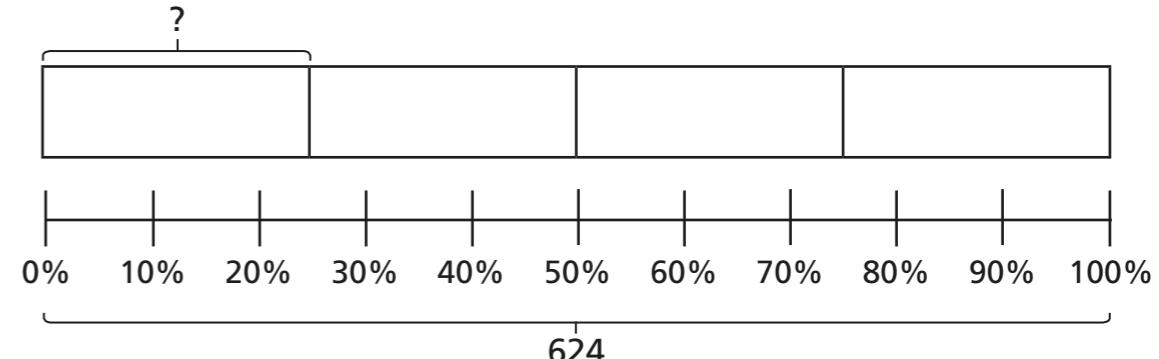


Compare answers with a partner.

- 3** Use the bar models to help you complete the calculations.



$$50\% \text{ of } 624 = 312$$

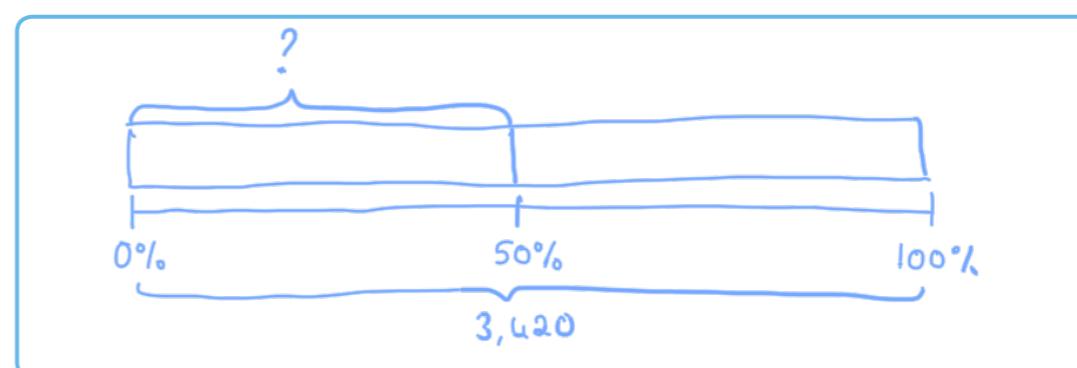


$$25\% \text{ of } 624 = 156$$

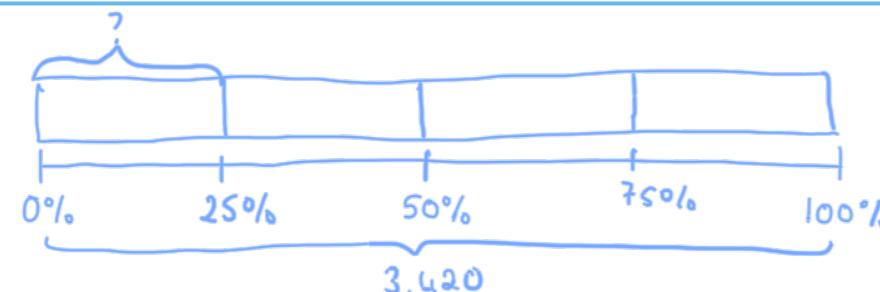
What do you notice about your answers?

- b) Use bar models to complete the calculations.

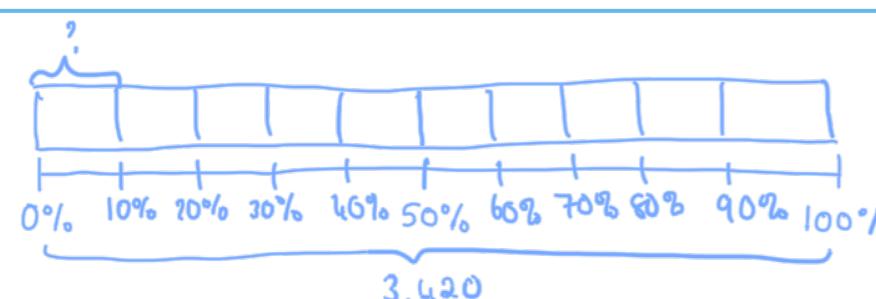
$$50\% \text{ of } 3,420 = 1,710$$



$$25\% \text{ of } 3,420 = 855$$



$$10\% \text{ of } 3,420 = \boxed{342}$$



## 4 Complete the calculations.

a) 50% of 3,000 = 1,500

c) 10% of 3,000 = 300

$$50\% \text{ of } 1,500 =$$

$10\% \text{ of } 1,500 = 150$

$$50\% \text{ of } 500 = \boxed{250}$$

$10\% \text{ of } 500 =$

b) 25% of 3,000 = 750

d) 1% of 3,000 =

$$25\% \text{ of } 1,500 = 375$$

$1\% \text{ of } 1,500 =$

$$25\% \text{ of } 500 = \boxed{125}$$

$$1\% \text{ of } 500 = \boxed{5}$$

What do you notice about your answers?

**5** Workers in a toy factory aim to pack 2,560 boxes each day.

At 10:00 am they have completed 25% of their target

a) How many boxes have they packed

640

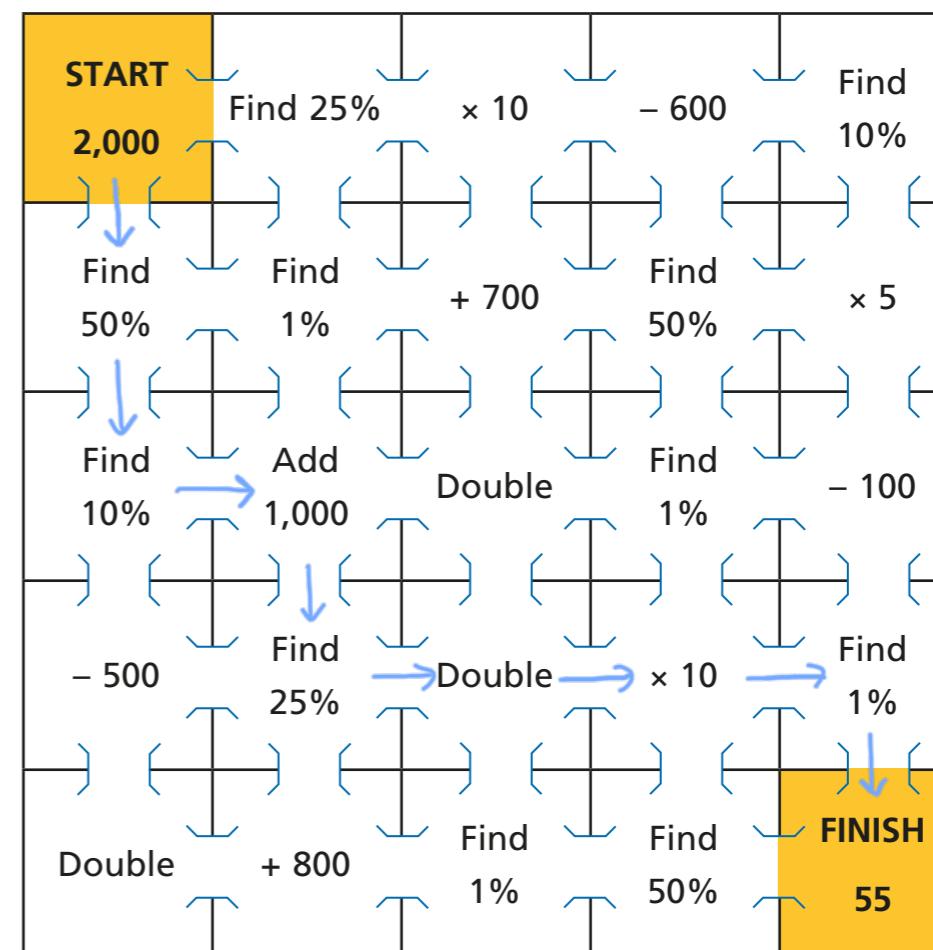
By midday they have packed 50% of their target

At 2:00 pm they have packed another 10% of their target.

b) How many more boxes do they need to pack to meet the daily target?

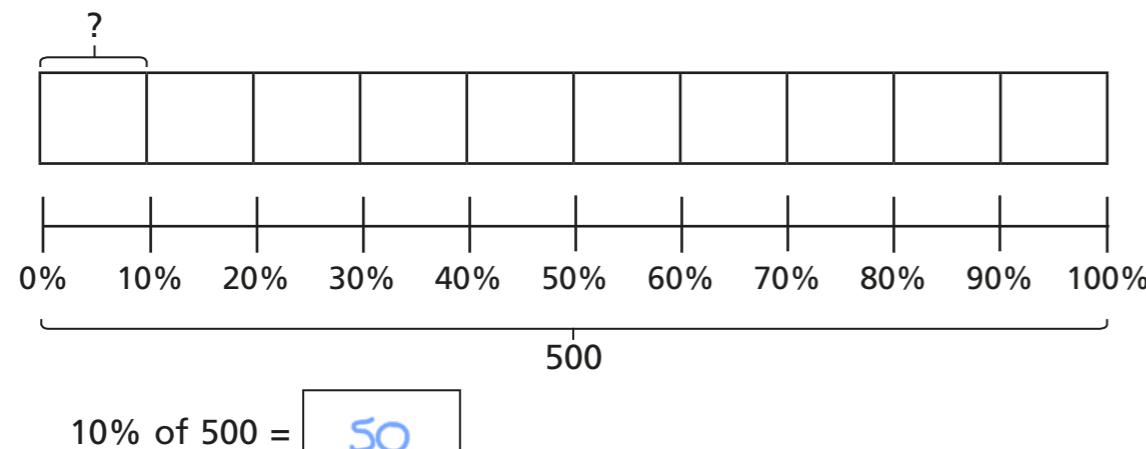
They need to pack 1,024 more boxes.

Follow the steps to find a way through the maze.



## Percentage of an amount (2)

- 1 a) Use the bar model to find 10% of 500



- b) Use your answer to part a) to help you complete the calculations.

$$20\% \text{ of } 500 = \boxed{100}$$

$$70\% \text{ of } 500 = \boxed{350}$$

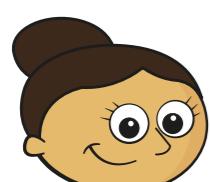
$$90\% \text{ of } 500 = \boxed{450}$$

$$60\% \text{ of } 500 = \boxed{300}$$

$$30\% \text{ of } 500 = \boxed{150}$$

$$100\% \text{ of } 500 = \boxed{500}$$

2



To find 5% you can find 10% and then halve it.

Use Dora's method to complete the calculations.

a) 5% of 40 =

d) 5% of 2,000 =

b) 5% of 400 =

e) 5% of 6,000 =

c) 5% of 4,000 =

What do you notice about your answers?

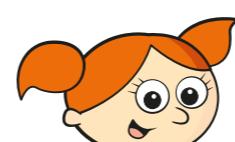
- 3 Some children are asked to find 75% of 340



I will find 25% and multiply it by 3

- a) Use Dexter's method to find 75% of 340

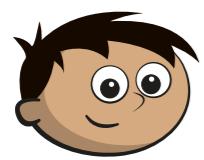
$$\boxed{255}$$



I will find 10% and multiply it by 7, then find 5% and add them together.

- b) Use Alex's method to find 75% of 340

$$\boxed{255}$$



I will find 25% and 50% and add them together.

- c) Use Amir's method to find 75% of 340

**255**

- d) Are there any other methods you could use?



- 4 Talk to a partner about different methods for finding these percentages.

20%      90%      60%      15%      55%      40%

Use your preferred method to calculate the percentages.

a) 20% of 1,000 = **200**

d) 15% of 1,000 = **150**

20% of 550 = **110**

15% of 300 = **45**

20% of 40 = **8**

15% of 30 = **4.5**

b) 90% of 1,000 = **900**

e) 55% of 1,000 = **550**

90% of 4,230 = **3,807**

55% of 4,400 = **2,420**

90% of 90 = **81**

55% of 8 = **4.4**

c) 60% of 1,000 = **600**

f) 40% of 1,000 = **400**

60% of 400 = **240**

40% of 400 = **160**

60% of 98 = **58.8**

40% of 98 = **39.2**

5

Ron is calculating these percentages.

10% of 20      20% of 10



20% is double 10%, and 10 is half of 20, so I know these will both have the same answer.

How does Ron know this?

6

- a) Complete the calculations.

20% of 40 = **8**      25% of 60 = **15**

40% of 20 = **8**      60% of 25 = **15**

- b) What do you notice about the answers?

Each column is the same.

- c) Does this always happen? Investigate with other examples.

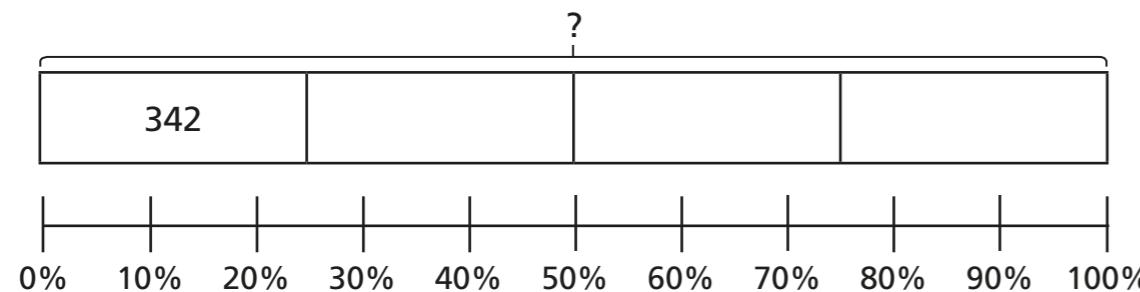
- d) Talk about your findings with a partner.



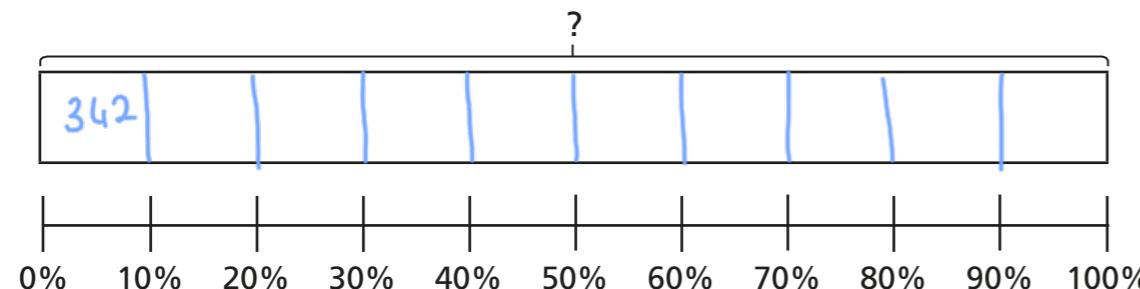
## Percentages – missing values

- 1 Complete the bar models to find the missing numbers.

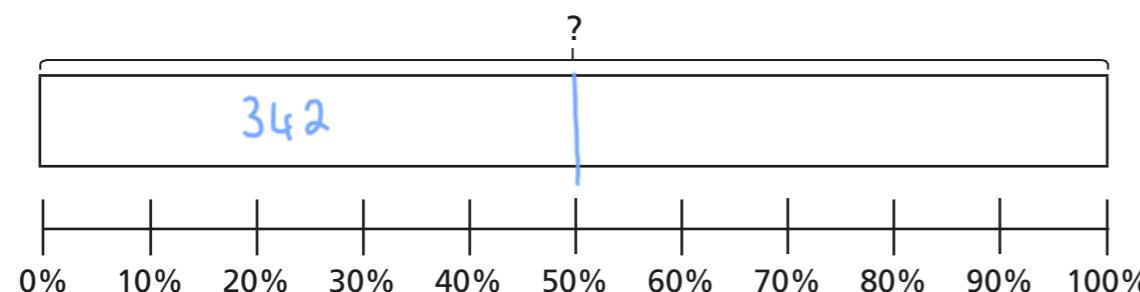
a) 25% of  $\boxed{1,368}$  = 342



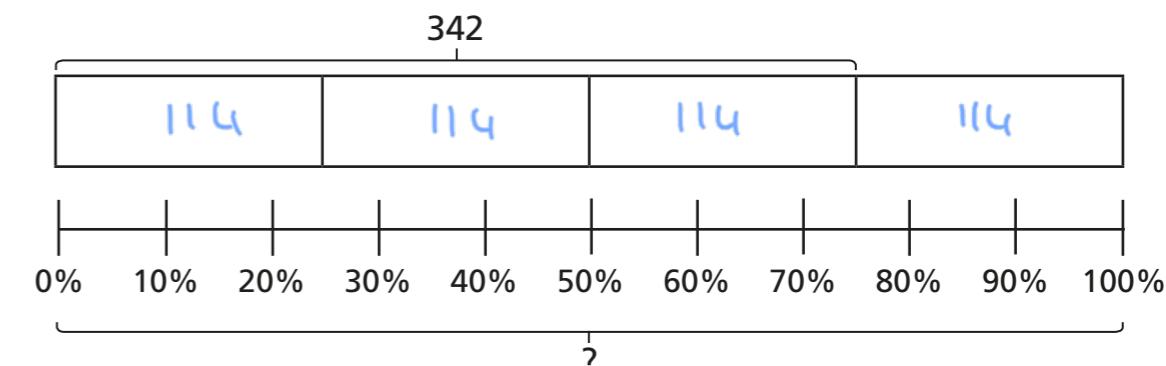
b) 10% of  $\boxed{3,420}$  = 342



c) 50% of  $\boxed{684}$  = 342



d) 75% of  $\boxed{456}$  = 342



- 2 40% of the children in a school are boys.

There are 188 boys in total.

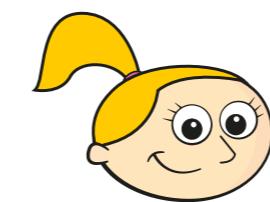
- a) How many children are there altogether?

$\boxed{470}$

- b) How many girls are there?

$\boxed{282}$

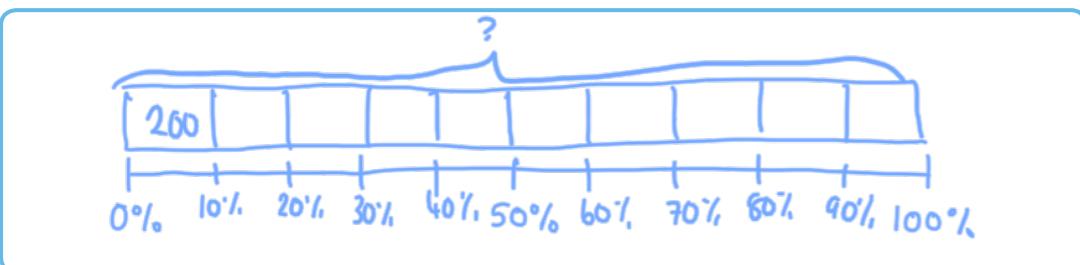
- 3 10% of  $\boxed{\quad}$  = 200



I know that to find 10%  
I have to divide by 10, so  
the answer is 20

- a) What mistake has Eva made?

- b) Draw a bar model to help Eva find the correct answer.



- c) What is the correct answer?

2,000

**4** Complete the calculations.

a) 20% of  $\boxed{150}$  = 30

c)  $\boxed{25}$  % of 400 = 100

20% of  $\boxed{300}$  = 60

$\boxed{75\%}$  % of 300 = 225

b) 10% of  $\boxed{400}$  = 40

d) 80% of  $\boxed{40}$  = 32

10% of  $\boxed{200}$  = 20

$\boxed{25}$  % of 32 = 8

448

- b) How many more people went to the cinema on Saturday than Sunday?

- c) 60% of the visitors were children.

How many children went to the cinema?

- 5** The table shows the number of people who visited a cinema over four days.

- a) Fill in the missing information.

Day	Percentage of total visitors	Number of visitors
Thursday	10%	224
Friday	$20\%$	448
Saturday	45%	1,008
Sunday	$25\%$	560
Total	$100\%$	2,240



E.g.

$\blacktriangle$	$\star$
500	100
100	20
10	2

What do you notice about your answers?

Talk about it with a partner.



## Order FDP

- 1 Write  $<$ ,  $>$  or  $=$  to complete the statements.

a)  $64\%$    $0.46$

c)  $\frac{3}{5}$    $35\%$

e)  $67\%$    $\frac{7}{10}$

b)  $0.96$    $\frac{97}{100}$

d)  $0.8$    $80\%$

f)  $\frac{7}{20}$    $0.3$

- 2 Draw arrows to estimate the positions of the fractions, decimals and percentages on the number line.

a)  $9\%$      $\frac{9}{10}$      $0.99$      $19\%$



b)  $\frac{2}{5}$      $0.52$      $45\%$      $0.2$



- 3 Write the fractions, decimals and percentages in ascending order.

a)  $\frac{7}{10}$      $\frac{13}{100}$      $21\%$      $0.9$

b)  $0.6$      $61\%$      $\frac{37}{50}$      $0.66$

c)  $47\%$      $0.89$      $\frac{63}{100}$      $12\%$

d) Which part was easiest to order: a), b) or c)?

Why?

e) Which set was most difficult to order: a), b) or c)?

Why?

f) Compare answers with a partner.

What is the same and what is different?



- 4 These fractions, decimals and percentages are in descending order.

$99\%$      $\frac{89}{100}$      $0.7$          $0.5$      $49\%$

Which of the fractions, decimals and percentages could fill the gap?

$0.78$       $51\%$       $\frac{3}{5}$       $0.6$       $\frac{4}{10}$

- 5 Tommy scored  $\frac{40}{50}$  on a Maths test.

Aisha got 78% of the test correct.

Aisha thinks she has done better because 78 is greater than 40.

Do you agree with Aisha?

Explain your answer.

c) 47%      0.89       $\frac{63}{100}$       12%

d) Which part was easiest to order: a), b) or c)?

Why?

e) Which set was most difficult to order: a), b) or c)?

Why?

f) Compare answers with a partner.

What is the same and what is different?



4 These fractions, decimals and percentages are in descending order.

99%       $\frac{89}{100}$       0.7      [ ]      0.5      49%

[ ]

Which of the fractions, decimals and percentages could fill the gap?

[ ]      [ ]      [ ]      [ ]      [ ]

5 Tommy scored  $\frac{40}{50}$  on a Maths test.

Aisha got 78% of the test correct.

Aisha thinks she has done better because 78 is greater than 40

Do you agree with Aisha?

Explain your answer.

6

Huan, Nijah and Scott each started with a 1-litre bottle of juice.

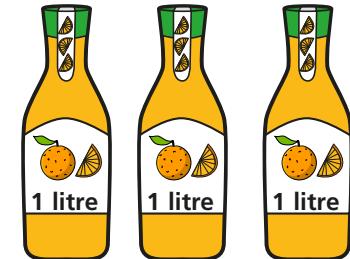
Huan drank 0.55 litres.

Nijah drank 59% of her juice.

Scott has  $\frac{4}{10}$  of his juice left.

Who drank the most? Show your working.

Who drank the least? Show your working.



7

a) Use the digit cards to make the statement correct.

1      2      3      4      5      6      7      8      9      10

$0.3 < \frac{\square}{10} < 80\%$

How many different solutions can you find?

b) Use the digit cards to write a percentage greater than  $\frac{2}{5}$  but less than 75%.

0      2      3      4      6      7

$\frac{2}{5} < \frac{\square}{10} < 0.75$

How many different percentages can you find?

Compare answers with a partner.



# Percentage of an amount (1)

- 1** Match the equivalent fractions to the percentages.

$\frac{1}{2}$

$25\%$

$\frac{1}{100}$

$1\%$

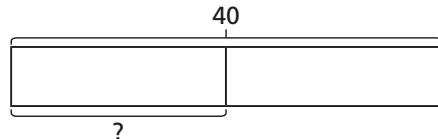
$\frac{1}{10}$

$50\%$

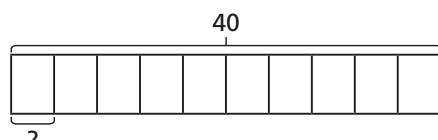
$\frac{1}{4}$

$10\%$

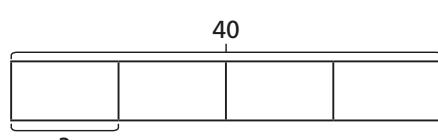
- 2** Match each bar model to the statement it represents.



10% of 40



25% of 40



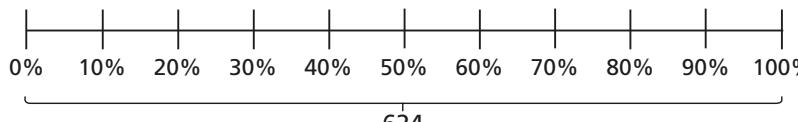
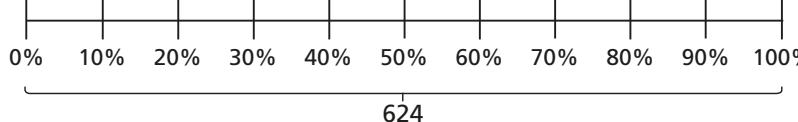
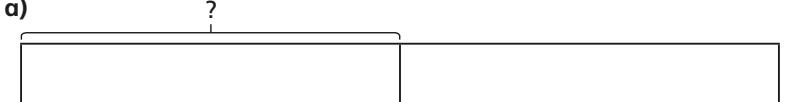
50% of 40

Compare answers with a partner.



- 3** Use the bar models to help you complete the calculations.

a)



What do you notice about your answers?

- b) Use bar models to work out the calculations.

50% of 3,420

25% of 3,420

10% of 3,420



- 4** Work out the calculations.

a) 50% of 3,000    b) 25% of 3,000    c) 10% of 3,000    d) 1% of 3,000

50% of 1,500

25% of 1,500

10% of 1,500

1% of 1,500

50% of 500

25% of 500

10% of 500

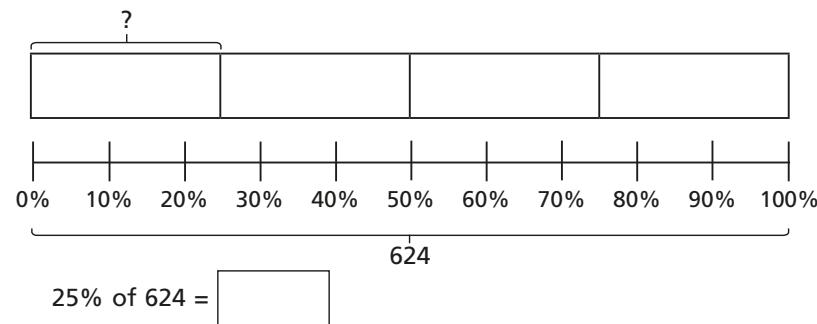
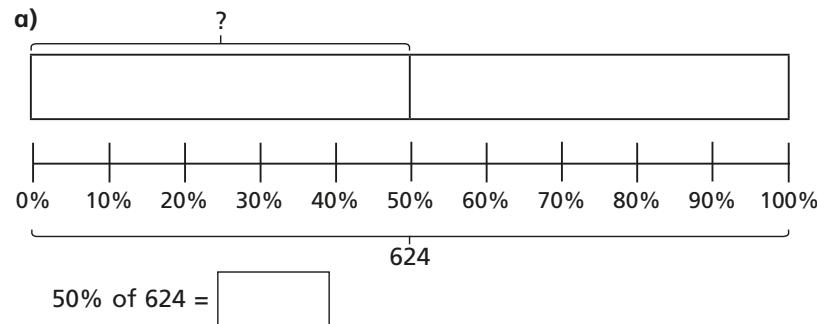
1% of 500

What do you notice about your answers?



## Percentage of an amount (1)

- 3** Use the bar models to help you complete the calculations.



What do you notice about your answers?

- b) Use bar models to work out the calculations.

50% of 3,420

25% of 3,420

10% of 3,420



- 4** Work out the calculations.

a) 50% of 3,000    b) 25% of 3,000    c) 10% of 3,000    d) 1% of 3,000

50% of 1,500

25% of 1,500

10% of 1,500

1% of 1,500

50% of 500

25% of 500

10% of 500

1% of 500



What do you notice about your answers?

- 5** Workers in a toy factory aim to pack 2,560 boxes each day.

At 10:00 am they have completed 25% of their target.

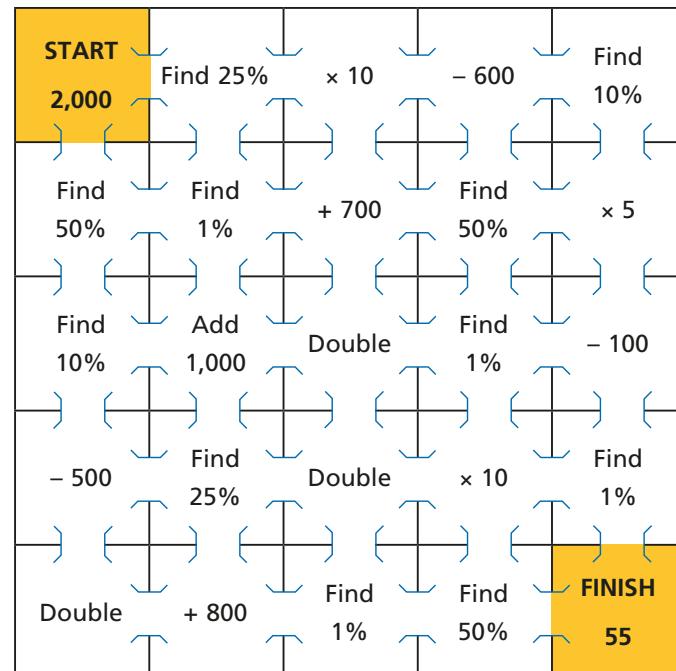
- a) How many boxes have they packed?

By midday they have packed 50% of their target.

At 2:00 pm they have packed another 10% of their target.

- b) How many more boxes do they need to pack to meet the daily target?

- 6** Follow the steps to find a way through the maze.



## **Building a Tudor House**

If you can watch this video from Hobby Craft about building a Tudor House, you just need to adapt some of the materials. Therefore, if you do not have something look around your house for an alternative.

<https://youtu.be/vx3I8ebV0eY>

Here are similar instructions from English Heritage



### BUILD YOUR OWN

Here's how to make your own model house.

To start with, you'll need two rectangular cardboard boxes - one slightly larger than the other. Turn the smaller box upside down and glue the larger box on top of it, with the opening at the top.

Cut the two small flaps at either end of the large box into triangles - these will be the shape of the roof (the gables). Put glue along the side of the triangles and press the longer flaps against them. Hold these in place until they stick together.

### FINISHING TOUCHES

Take a sheet of cardboard, fold it in half lengthways and place this over the flaps of the top box to create a roof. Make sure there's a slight overlap on each side, and trim it if the overlap is too big. Glue it in place once you've cut it to the right size.

Now paint the house white (you might need two coats) and paint the roof brown. Once the paint has dried, draw on the wooden beams, windows and roof tiles with a black felt-tip pen, and use a brown felt-tip pen to draw the door.



To make your house unique, you could add flowers growing outside or people at the windows.

### WHAT WAS LIVING IN A TUDOR HOUSE LIKE?

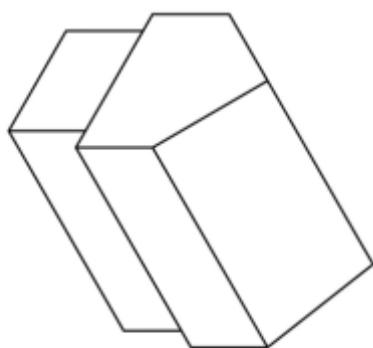
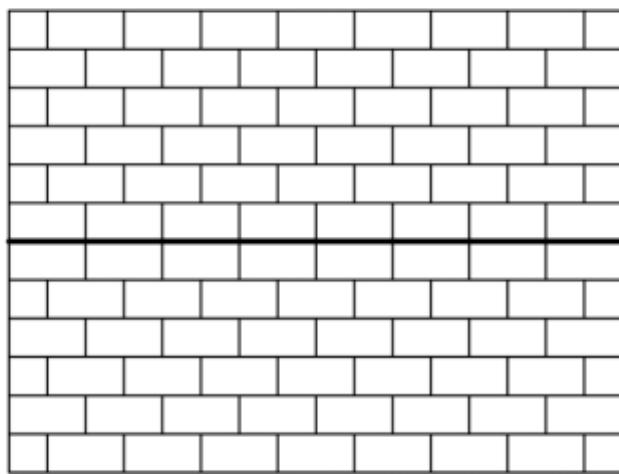
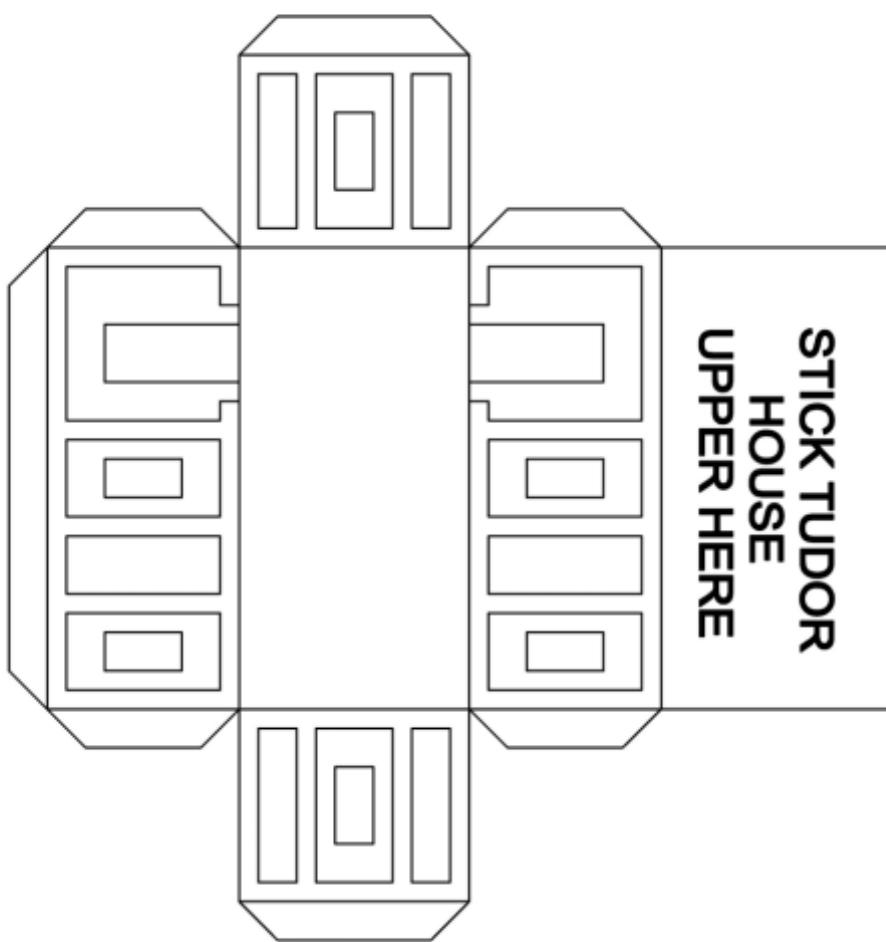
Most Tudor houses had earth floors, which were very hard to keep clean. As only rich people could afford carpets, most people covered the floor with rushes and simply replaced them when they became too dirty.

Furniture tended to be made of oak and was heavy and uncomfortable. Usually, people had stools and benches rather than chairs.

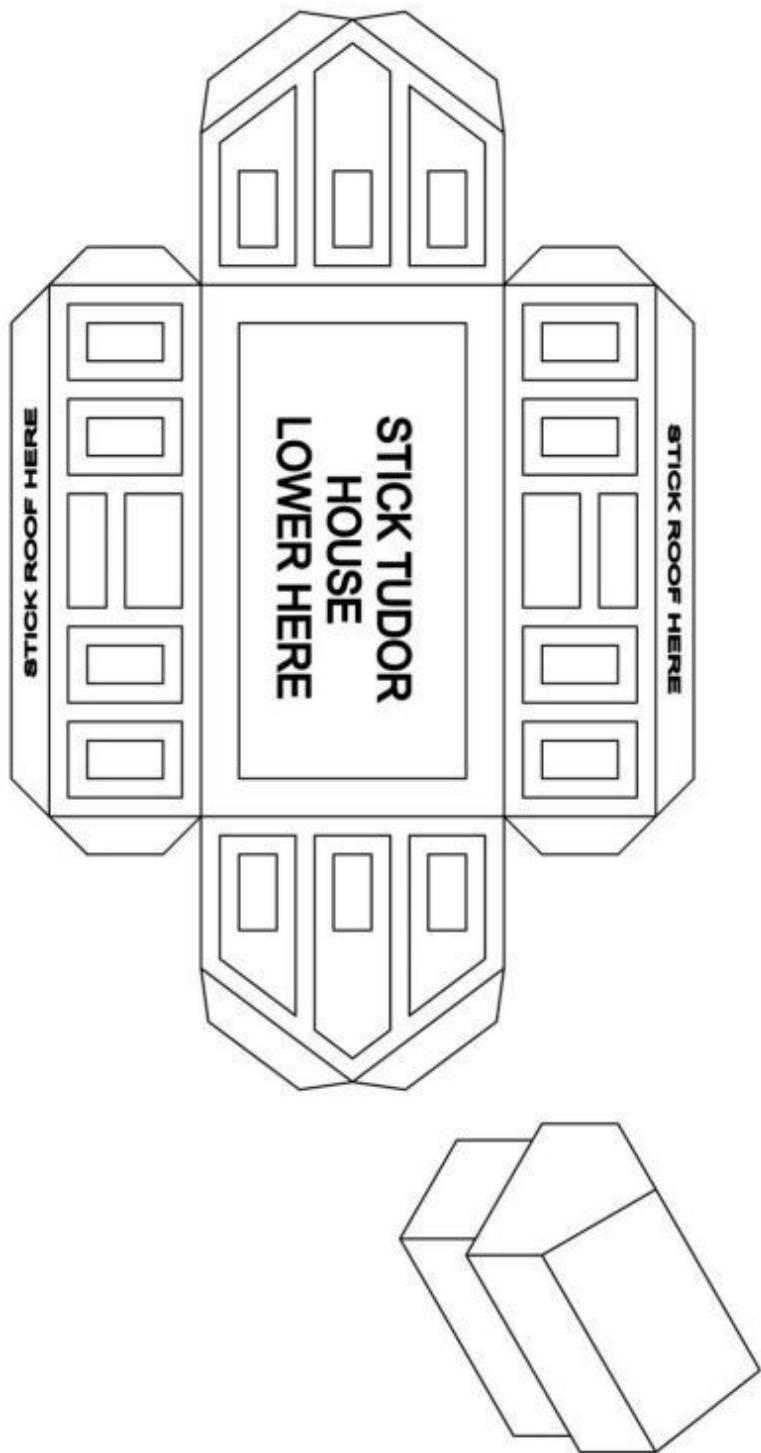
People had gardens but these were normally quite small and were used to grow vegetables and herbs. Only very rich people had big gardens. Sometimes these would include fancy things like fountains or even mazes.



# TUDOR HOUSE MODEL PART 1 OF 2



# TUDOR HOUSE MODEL PART 2 OF 2



What do you remember about our Science work called 'Animals Including Humans'?

Animals including  
humans



# Topic: Science: Living Things and their Habitats

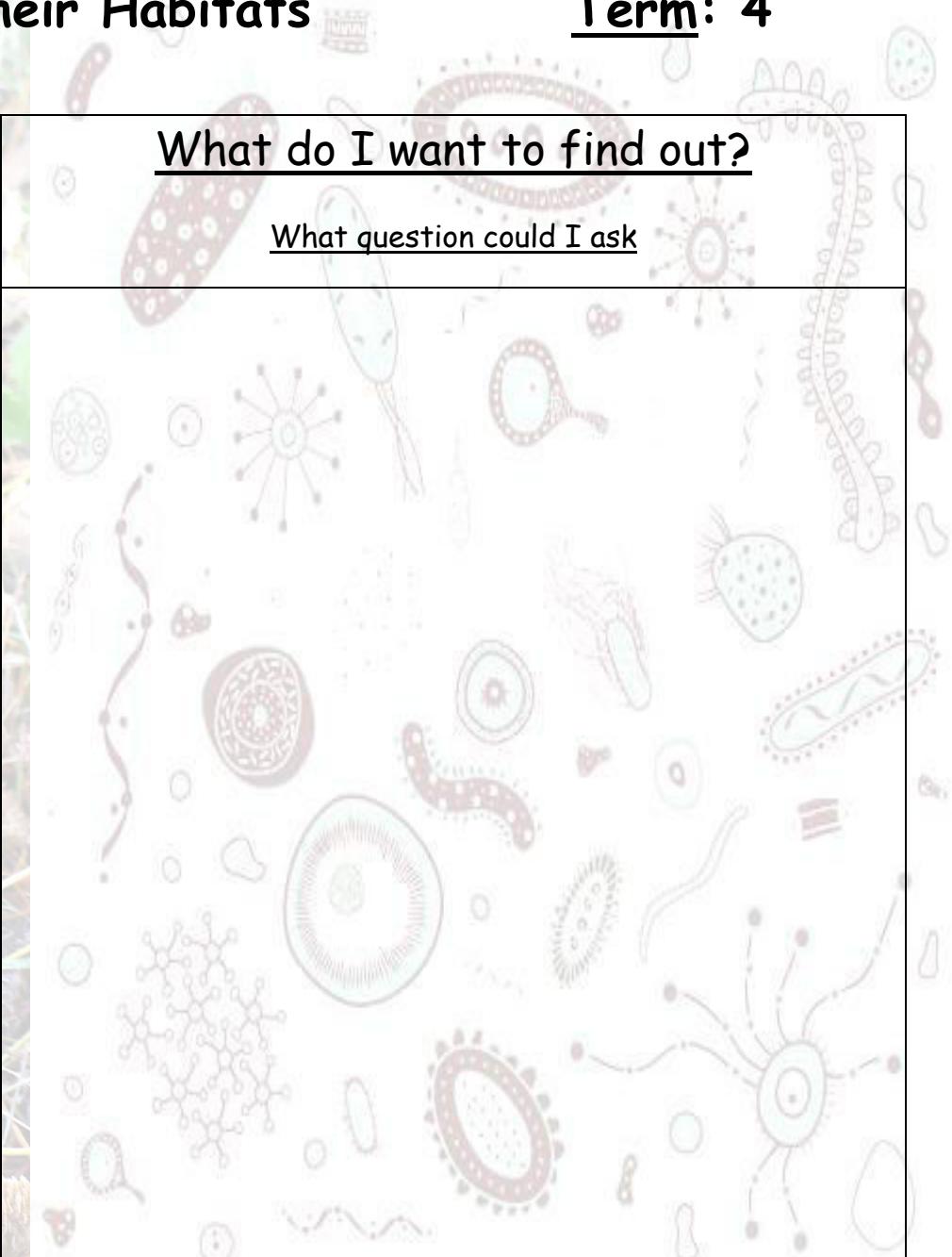
Term: 4

What do I already know?

What do I want to find out?

What question could I ask

How will I find out?



What do you remember from our history

last term?

## History of numbers.



Topic: Early Islamic Civilisation - What was it like for Sinbad or Aladdin to live in Baghdad?

Term: 4

OXFORD

*One Thousand and One*

What do I already know?

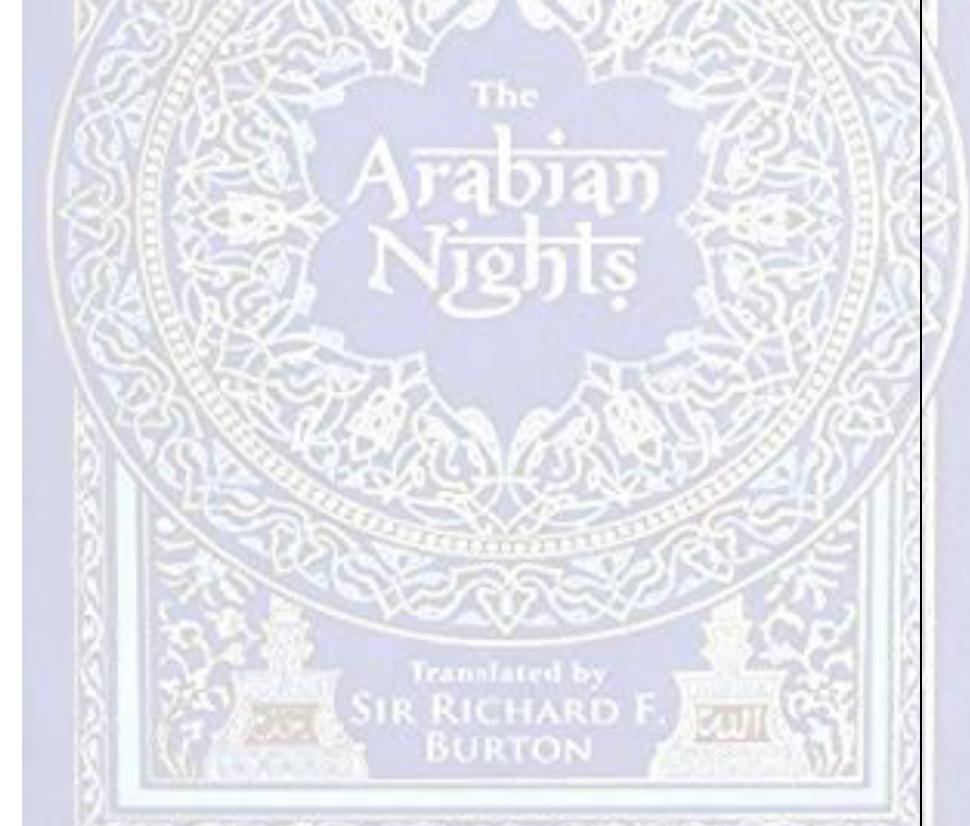
ARABIAN NIGHTS

How will I find out?

GERALDINE McCAGHREAN

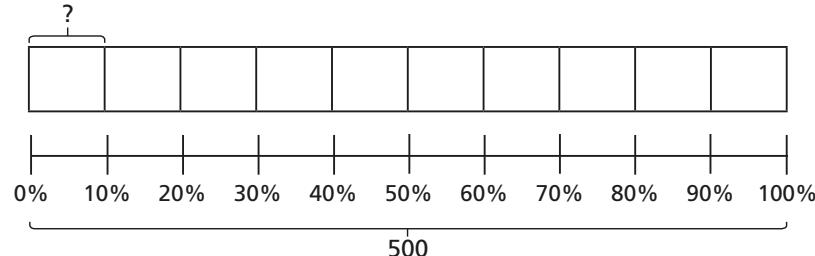
What do I want to find out?

What question could I ask?



## Percentage of an amount (2)

- 1** a) Use the bar model to find 10% of 500



- b) Use your answer to part a) to help you work out the calculations.

20% of 500

70% of 500

90% of 500

60% of 500

30% of 500

100% of 500

**2**



To find 5% you can find 10% and then halve it.

Use Dora's method to work out the calculations.

a) 5% of 40

d) 5% of 2,000

b) 5% of 400

e) 5% of 6,000

c) 5% of 4,000

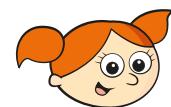
What do you notice about your answers?

- 3** Some children are asked to find 75% of 340



I will find 25% and multiply it by 3

- a) Use Dexter's method to find 75% of 340



I will find 10% and multiply it by 7, then find 5% and add them together.

- b) Use Alex's method to find 75% of 340



I will find 25% and 50% and add them together.

- c) Use Amir's method to find 75% of 340

- d) Are there any other methods you could use?

**4**

- Talk to a partner about different methods for finding these percentages.

20%      90%      60%      15%      55%      40%

Use your preferred method to calculate the percentages.

a) 20% of 1,000

c) 60% of 1,000

e) 55% of 1,000

20% of 550

60% of 400

55% of 4,400

20% of 40

60% of 98

55% of 8

b) 90% of 1,000

d) 15% of 1,000

f) 40% of 1,000

90% of 4,230

15% of 300

40% of 400

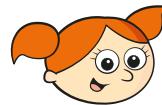
90% of 90

15% of 30

40% of 98

## Percentage of an amount (2)

- a) Use Dexter's method to find 75% of 340



I will find 10% and multiply it by 7, then find 5% and add them together.

- b) Use Alex's method to find 75% of 340



I will find 25% and 50% and add them together.

- c) Use Amir's method to find 75% of 340

- d) Are there any other methods you could use?

- 4 Talk to a partner about different methods for finding these percentages.

20%      90%      60%      15%      55%      40%

Use your preferred method to calculate the percentages.

- |                 |                 |                 |
|-----------------|-----------------|-----------------|
| a) 20% of 1,000 | c) 60% of 1,000 | e) 55% of 1,000 |
| 20% of 550      | 60% of 400      | 55% of 4,400    |
| 20% of 40       | 60% of 98       | 55% of 8        |
| b) 90% of 1,000 | d) 15% of 1,000 | f) 40% of 1,000 |
| 90% of 4,230    | 15% of 300      | 40% of 400      |
| 90% of 90       | 15% of 30       | 40% of 98       |

5

- Ron is calculating these percentages.

10% of 20      20% of 10



20% is double 10%, and 10 is half of 20, so I know these will both have the same answer.

How does Ron know this?

6

- a) Work out the calculations.

20% of 40      25% of 60

40% of 20      60% of 25

- b) What do you notice about the answers?

- c) Does this always happen? Investigate with other examples.

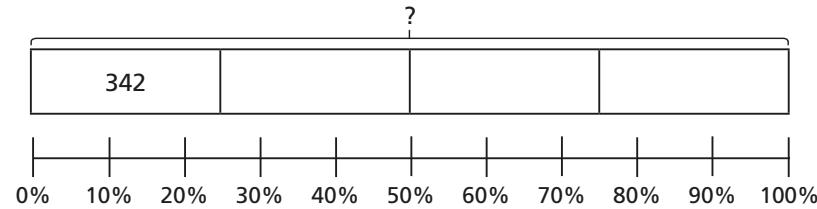
- d) Talk about your findings with a partner.



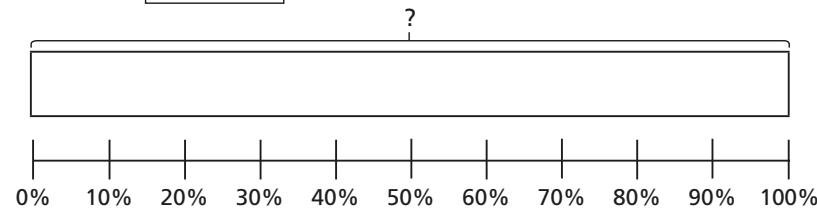
## Percentages – missing values

- 1 Complete the bar models to find the missing numbers.

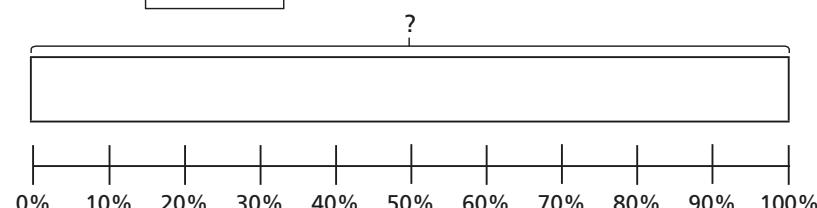
a) 25% of  $\boxed{\quad}$  = 342



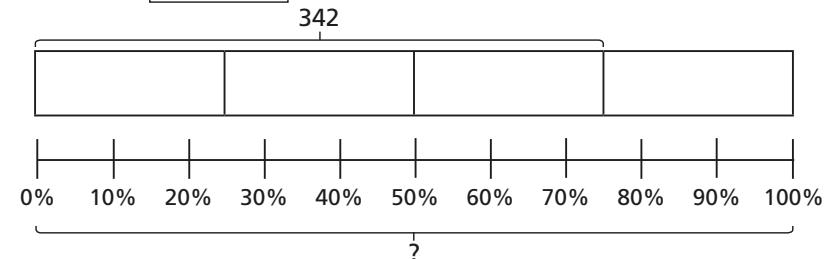
b) 10% of  $\boxed{\quad}$  = 342



c) 50% of  $\boxed{\quad}$  = 342



d) 75% of  $\boxed{\quad}$  = 342

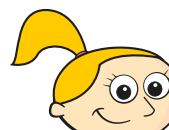


- 2 40% of the children in a school are boys.

There are 188 boys in total.

- a) How many children are there altogether?  
b) How many girls are there?

3 10% of  $\boxed{\quad}$  = 200

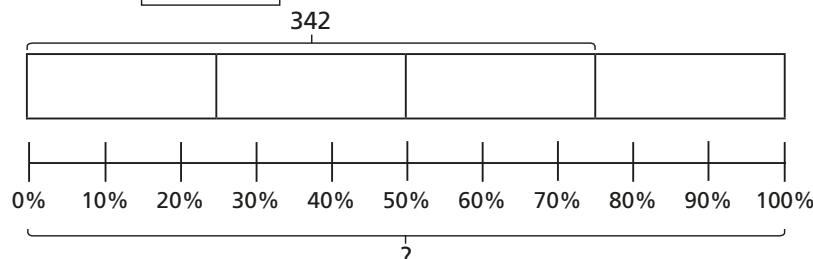


I know that to find 10%  
I have to divide by 10, so  
the answer is 20

- a) What mistake has Eva made?  
b) Draw a bar model to help Eva find the correct answer.  
c) What is the correct answer?

## Percentages – missing values

d) 75% of  $\boxed{\quad}$  = 342



2 40% of the children in a school are boys.

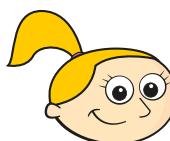
There are 188 boys in total.



a) How many children are there altogether?

b) How many girls are there?

3 10% of  $\boxed{\quad}$  = 200



I know that to find 10%  
I have to divide by 10, so  
the answer is 20

a) What mistake has Eva made?

b) Draw a bar model to help Eva find the correct answer.

c) What is the correct answer?



4

Complete the calculations.

a) 20% of  $\boxed{\quad}$  = 30

20% of  $\boxed{\quad}$  = 60

b) 10% of  $\boxed{\quad}$  = 40

10% of  $\boxed{\quad}$  = 20

c)  $\boxed{\quad}$  % of 400 = 100

$\boxed{\quad}$  % of 300 = 225

d) 80% of  $\boxed{\quad}$  = 32

$\boxed{\quad}$  % of 32 = 8

5

The table shows the number of people who visited a cinema over four days.

a) Fill in the missing information.

Day	Percentage of total visitors	Number of visitors
Thursday	10%	
Friday		448
Saturday	45%	
Sunday		
Total		2,240

b) How many more people went to the cinema on Saturday than Sunday?

c) 60% of the visitors were children.

How many children went to the cinema?

6

Find three different solutions to make the statement correct.

10% of  $\triangle$  =  $\star$  % of 50

What do you notice about your answers?

Talk about it with a partner.





Name: \_\_\_\_\_

## How can I show more resilience at school?

Resilience is the ability to recover from difficulties and not let things get you down. We all face problems, make mistakes and get things wrong but it is important to bounce back as best we can and show bounce-back-ability!

Try filling each sticky note with an idea of how we can all be more resilient at school. Circle your favourite one and see if you can achieve that over the next week.





### Scenario Cards

Use the scenario cards to explain to a family member how you would feel during each situation. Discuss: How might you react? Where would you seek adult support? What consequences would your reactions have?

I passed my guitar exam.

My best friend has been picked to be the main part in the school play. I had been hoping they might pick me.

The school holidays begin tomorrow!

I tried really hard but still got lots of spellings wrong in my test.



I am not allowed to play outside until I have tidied my room.

I have to read a poem in my class assembly and the whole school will be watching.

I tripped and fell in the break. I think someone may have pushed me.

A person who I know is a bully is walking towards me in the corridor.



Someone in my class is having a big, exciting birthday party. I am not invited.

My best friend has made another friend. They play together at playtime and don't want me to join in.

Someone just nudged me and now my painting is ruined.

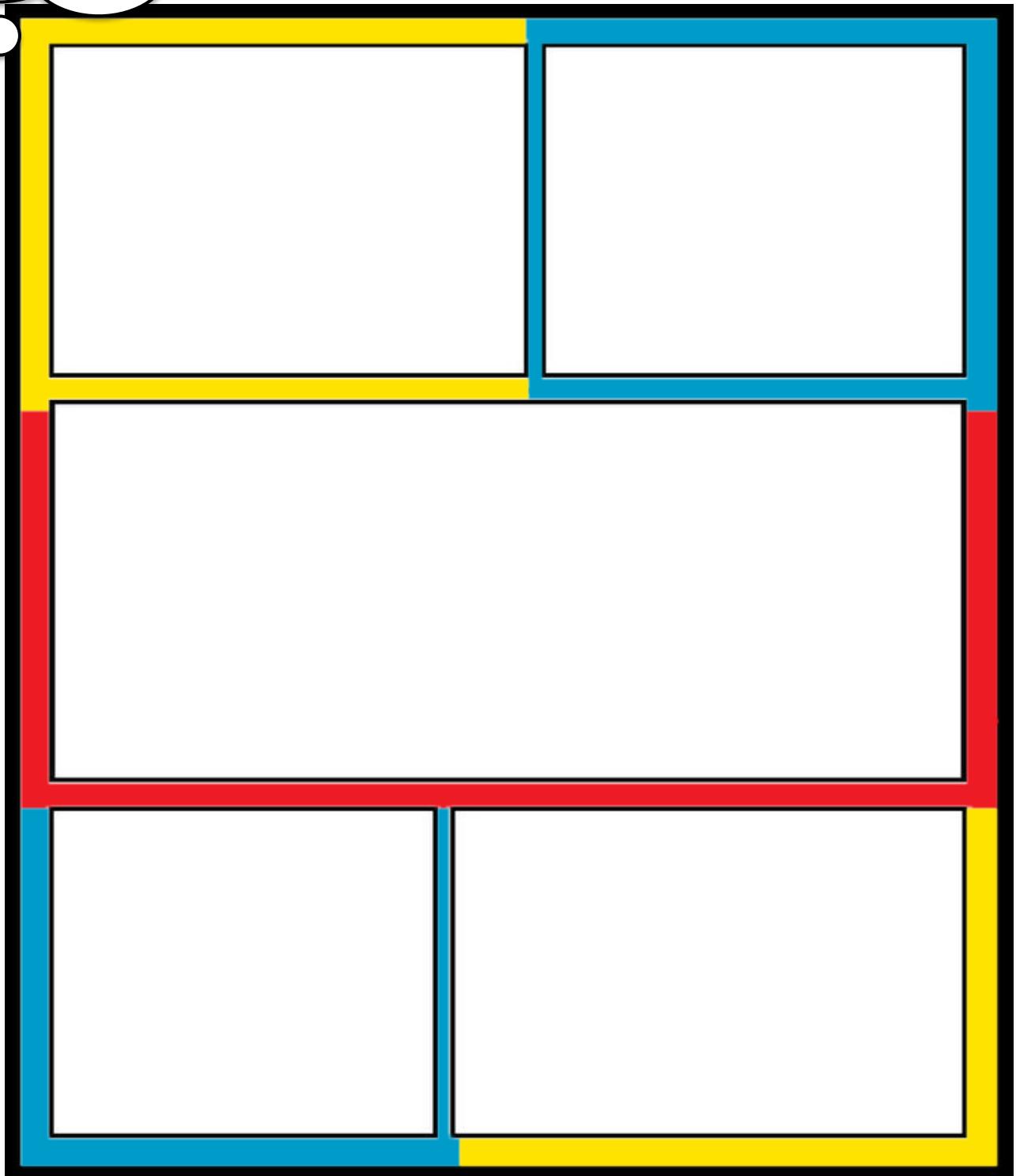
My friend told me they are moving to another school.



For example, perhaps you had a big exam coming up, or too much homework one week and not enough time to do it in.

## Emotion Comic Strip

Try to think of a time when something happened that gave you a strong emotion and that led you to feel stressed. Draw it in the comic strip below.

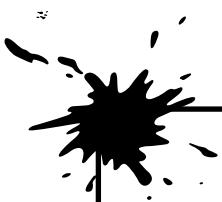


Can you imagine an ideal ending to your situation that would make everything feel better (for example, talking to someone who could help)?

Name:

## Difficult Emotions

Design a new Beano character or face to demonstrate the following difficult emotions. Then try to describe what happens to your body, face and behaviour when you feel this emotion. Try to think of ways you might be able to change this emotion to make yourself feel better and not let your feelings run out of control.



Anger

When I am upset, I

.....  
.....  
.....

I could change how I feel by

.....  
.....  
.....



Jealousy



Sadness



When I am jealous, I

.....  
.....  
.....

I could change how I feel by

.....  
.....  
.....

# Children's Mental Health Week 2021: Express Yourself

This year, Children's Mental Health Week is from the 1<sup>st</sup> to the 7<sup>th</sup> February in the UK. Each year, there is a different theme and the theme for this year is 'Express Yourself'. It is a week where schools can do activities that help children express who they are and how they feel.

## The Organisation Behind It

Children's Mental Health Week is organised by a charity called Place2Be, who help children in schools all over the UK build up self-esteem and tackle any issues they might face. Children's Mental Health Week began in 2015 and has grown ever since, helping many young people feel more positive about themselves. In the past, the themes have included kindness and resilience.

Eight out of ten children that work with Place2Be find it difficult to think positively about themselves, which can make them unhappy.



**The theme of 'Express Yourself' tries to make children see that it's OK to say what they are thinking and feeling and also, it's OK for other people to express themselves too.**

HRH The Duchess of Cambridge has been Place2Be's Royal Patron since 2013 and she recorded a video message to launch the week.

HRH The Duchess of Cambridge takes a special interest in issues of mental health facing children today. She would like children to be given the opportunity to be the best versions of themselves.



"Childhood is an incredibly important moment in our lives.

It is the time when we explore our personalities, discover the potential that lies within us and learn how to be ourselves.

Our experience of the world at this early stage helps to shape who we become as adults and how we begin to feel comfortable in our own skin."

## Difficulties Faced By Children

Children encounter many different issues in their day-to-day lives, from family issues, to bullying, negative self-image and the effect of social media on self-esteem.

80% of children who come into contact with Place2Be are affected by low self-esteem.

Thinking negatively about our differences and comparing ourselves to others can make it difficult for us to confidently be ourselves. This year's theme tries to highlight the fact that it's OK for us all to express ourselves, however different our thoughts, feelings or ideas may be.

**Place2Be have suggested these tips for expressing yourself:**

- ★ You might prefer different methods of expression at different times or for expressing different thoughts or feelings.
- ★ Remember to make your own choices and express **yourself**. Try not to make choices based on your friends or other people.
- ★ Try lots of different ways to express yourself and think about which ones you enjoy the most.

## What is Being Done?

Place2Be and Children's Mental Health Week work towards making a difference in how people view the issues they are facing.

**This is done through activities that focus on raising self-esteem, improving positivity and self-expression.**

Being able to express ourselves can make it easier to deal with problems that arise and can help us get on better with others who might be different.



## Express Yourself

The theme of 'Express Yourself' for 2021 looks at giving people the support and tools to be able to share their thoughts and feelings fully and with confidence.

Place2Be have chosen 'Express Yourself' and not 'Be Positive' on purpose as it is important to express all of our emotions, not just the positive ones. You can express yourself creatively – through art, music, dance, drama, photography or writing. You can express yourself in the clothes you wear and the choices you make.

**The important thing to remember is that expressing yourself, however you choose to, is not about being the best at something or putting on a performance for others.**

**It is about finding a way to show who you are and how you see the world that can help you feel good about yourself.**

# Questions

1. When did Children's Mental Health Week begin?

---

2. Explain, using evidence from the text, how The Duchess of Cambridge feels about Children's Mental Health.

3. Select the correct options to complete these sentences.

The Duchess of Cambridge...

a

promotes mental wellbeing in schools.

Self-expression...

b

not about being the best at something.

Expressing yourself is...

c

has been a Royal Patron of Place2Be for eight years.

Place2Be...

d

can help children reflect on their lives, beliefs and thoughts.

4. Which of the following words is closest in meaning to 'arise'. Tick one.

- pointless
- vanish
- appear
- get larger

5. According to Place2Be, what percentage of children are affected by low self-esteem?

---

6. [In our childhood, we] learn to be ourselves.

Explain what you think HRH The Duchess of Cambridge meant by this.

7. What do Place2Be believes happens when children do not express themselves?

8. Why do you think it is important to express yourself when you are feeling both positive and negative emotions?

9. Fill in the missing words:

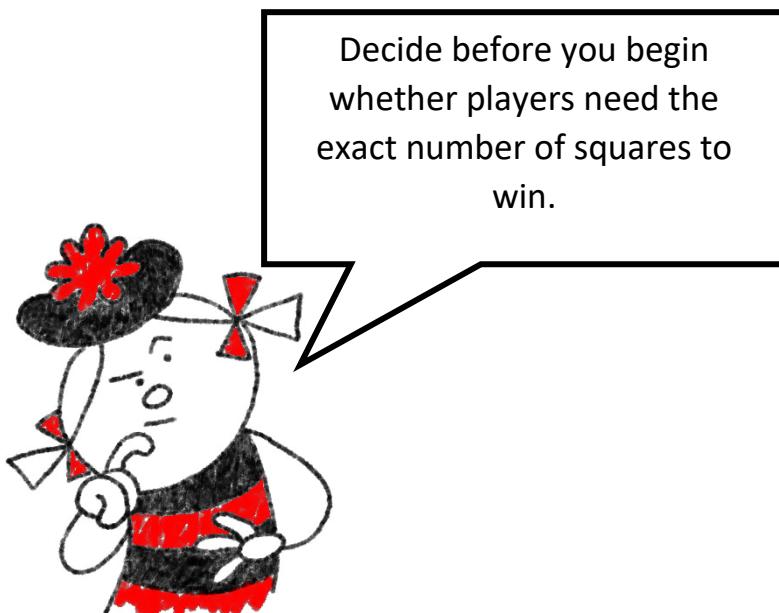
You can express yourself \_\_\_\_\_ – through art, music, dance, drama, photography or writing. You can express yourself in the clothes you wear and the \_\_\_\_\_ you make.

10. Explain what you think the positive impact of having Children's Mental Health Week as an event could be.

# Emotions: The Game

## How to play

- Roll the dice to see who starts (highest roll goes first).
- Take turns to roll and use the key to find out what you need to do with the emotion you land on.
- First to the finish wins!
- If you land on the same square as another player, jump ahead one space.



Decide before you begin whether players need the exact number of squares to win.



Tell us about a time you felt this emotion

Act it out

Draw an emoji which expresses this emotion

Start





## Emotions Wordsearch!

D Z O B Q K T D E I S D I S A  
M F A Y V E E M Z S I V V N E  
S N H W A T M I I S B L G O N  
U E H L I T D D A F N R G L O  
O I W C E B Q P J E Y B B E S  
L V X D C F P D E S S E R T S  
A E G D E O T Z M T U K F Y F  
E J X I I S W O F E S K J Z I  
J N Q N Q I U A U R O Z B S G  
N R T J C B K F R T R A R J M  
U E D Y A R I C N P R T Y F P  
D Z R W M D H E F O Y F I F Y  
Y T Q W R Y U K K C C T N F P  
Y K O U Q J P F N E R V O U S  
D Z R N U L F H O H U Q P D K



Use the words to fill in the gaps below and then find them in the Wordsearch.

It's tricky – the words might be backwards or diagonal so try your best!

- You have been waiting for ages for school lunch and then someone pushes in front of you in the queue. You might feel a \_\_\_\_\_
- You've been looking forward to Golden Time all week. But then someone misbehaves so your teacher says the class will be doing handwriting instead. You might feel d \_\_\_\_\_
- You just got piles of homework over the weekend but you don't think you're going to have time to do it. You might feel s \_\_\_\_\_
- Your teacher has set you a maths task but you are not sure what to do. You might feel c \_\_\_\_\_
- Tomorrow you are speaking in your class assembly. You might feel n \_\_\_\_\_
- Your friends have all gone off at playtime and you are alone. You might feel l \_\_\_ o \_\_
- It's your birthday tomorrow! You might feel e \_\_\_\_\_
- Someone in your class has got the coolest new trainers and everyone loves them. You might feel j \_\_\_\_\_
- By accident, you knocked into someone and they fell over and hurt themselves. You might feel s \_\_\_\_\_

