100%	420 km	100%	420 km
10%	42 km	10%	42 km
5%	21 km	5%	21 km
20%	84 km	20%	84 km
30%		30%	
40%		40%	
50%		50%	
60%		60%	
70%		70%	
80%		80%	
90%		90%	

'Complete the following tables.'

100%	30
50%	
10%	
1%	

100%	230
50%	
10%	
1%	

100%	84
50%	
10%	
1%	

Match the equivalent fractions to the percentages.

$\frac{1}{2}$ 25%

$\frac{1}{100}$ 1%

$\frac{1}{10}$ 50%

$\frac{1}{4}$ 10%

Missing-number problems:

'Fill in the missing numbers.'

[ ] % of 54 = 5.4

14 = [ ] % of 1,400

[ ] % of 170 = 85

- 'We set the target of raising £200 for our class charity. So far, we have raised 10% of the money. How much have we raised?'

- 'There are 45,000 tickets available for a rugby match. 50% of the tickets have been sold. How many tickets have been sold?'

- 'A zoo has 300 butterflies in its butterfly house. 1% of them are the rare banded peacock butterflies. How many banded peacock butterflies does the zoo have?'
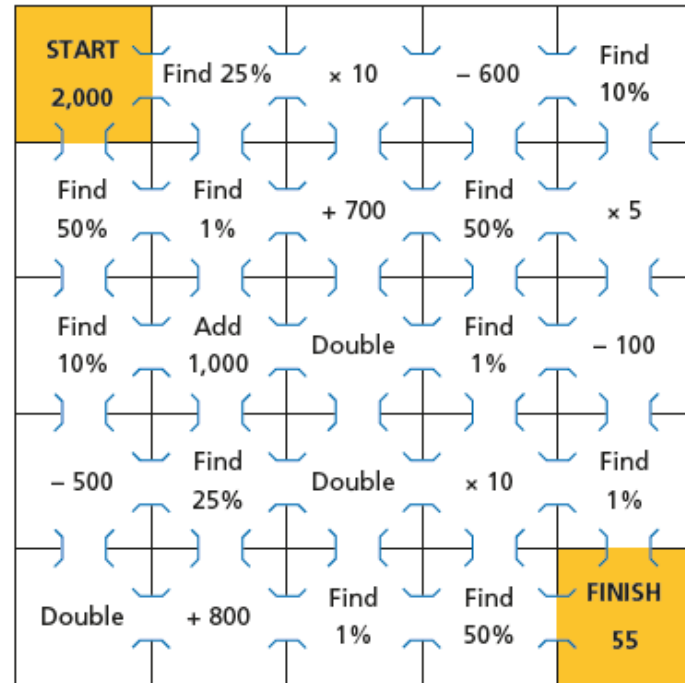
'Find the following percentages:'

- 40% of 15

100%	15
10%	
40%	

- 25% of 680

100%	680
50%	
25%	

- 5% of 1,400

100%	1,400
10%	
5%	

- 75% of 240

100%	240
50%	
25%	
75%	

?

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

624
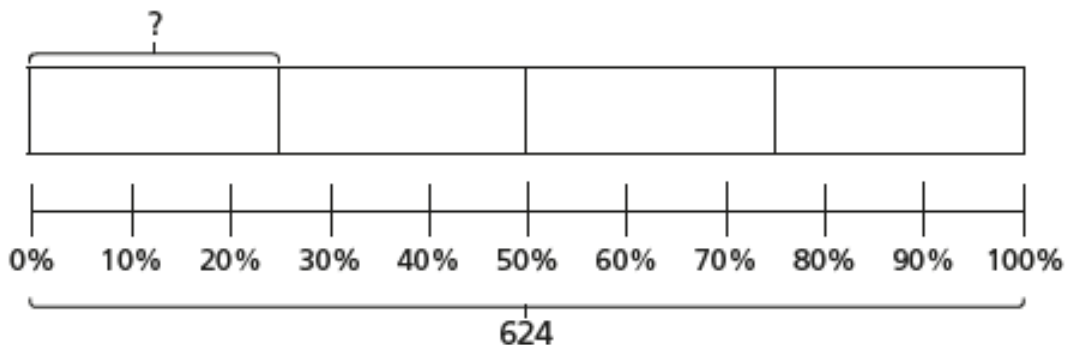
25% of 624 = [ ]

- 25% of 280
- 30% of 55
- 5% of 80
- 90% of 1,500
- 75% of 900

'Class 6 are doing a sponsored silence for the whole of the six-hour school day. So far, they are 10% of the way through. How long is left?'

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?

They need to pack [ ] more boxes.

Follow the steps to find a way through the maze.

START 2,000	Find 25%	× 10	− 600	Find 10%
Find 50%	Find 1%	+ 700	Find 50%	× 5
Find 10%	Add 1,000	Double	Find 1%	− 100
− 500	Find 25%	Double	× 10	Find 1%
Double	+ 800	Find 1%	Find 50%	FINISH 55

Use your preferred method to calculate the percentages.

a) 20% of 1,000 = [ ]

20% of 550 = [ ]

20% of 40 = [ ]

b) 90% of 1,000 = [ ]

90% of 4,230 = [ ]

90% of 90 = [ ]

c) 60% of 1,000 = [ ]

60% of 400 = [ ]

60% of 98 = [ ]

d) 15% of 1,000 = [ ]

15% of 300 = [ ]

15% of 30 = [ ]

e) 55% of 1,000 = [ ]

55% of 4,400 = [ ]

55% of 8 = [ ]

f) 40% of 1,000 = [ ]

40% of 400 = [ ]

40% of 98 = [ ]

- *'Find different ways to complete the following statements. What do you notice about the relationships between each pair of numbers?'*

10% of [ ] = 50% of [ ]

1% of [ ] = 10% of [ ]

Tuesday 01.03.22

BONUS CHALLENGE

Extra Spicy

Lee is 100% older than his brother Cain. In eight years time he will only be 20% older than Cain. How old are Lee and Cain?

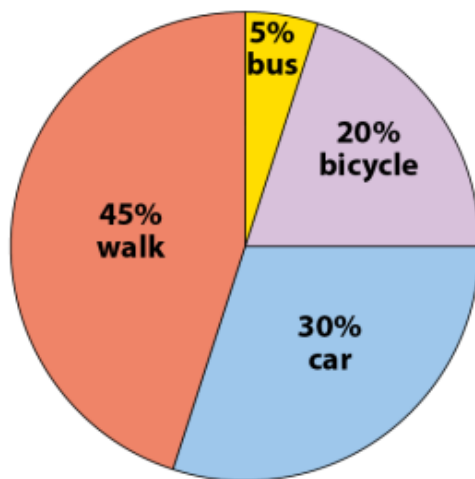48% of 380

12% of 5

19% of 40,000

75% of 3 m

34% of £10

61% of 5 kg

'The full price of a computer is £299. There is 10% discount in a sale. How much does the computer cost now?'

'There are 120 children in Year 6. Calculate how many children use each mode of transport to get to school.'

Year 6 transport to school

5% bus

20% bicycle

45% walk

30% car

Bicycle:

Walk:

Car:

Bus:

Work out 98% of 700.

Calculate 3% of $600

There are 20,000 fans at a football match.
12% of the fans are women.

Work out how many women attended the match.

'Are the following statements true or false? Why? Challenge yourself to do this <u>without calculating the exact percentages</u>.'

- 25% of 379 is a bit less than 100.
- 90% of 520 is around 400.
- 45% of 210 is more than 105.

- 'Each class in a school is given a box of 120 pens.'

  - 'Year 3 have used $\frac{1}{4}$ of the pens.'
  - 'Year 4 have used 35 pens.'
  - 'Year 5 have used $\frac{7}{20}$ of the pens.'
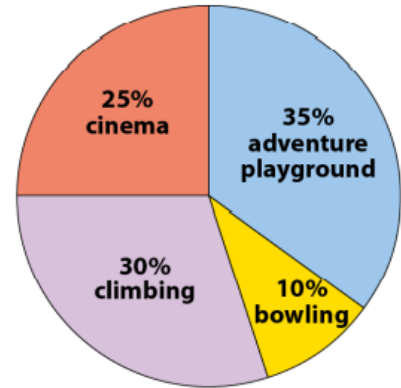 - 'Year 6 have used 30% of the pens.'

  'Which class has used the most pens so far?'
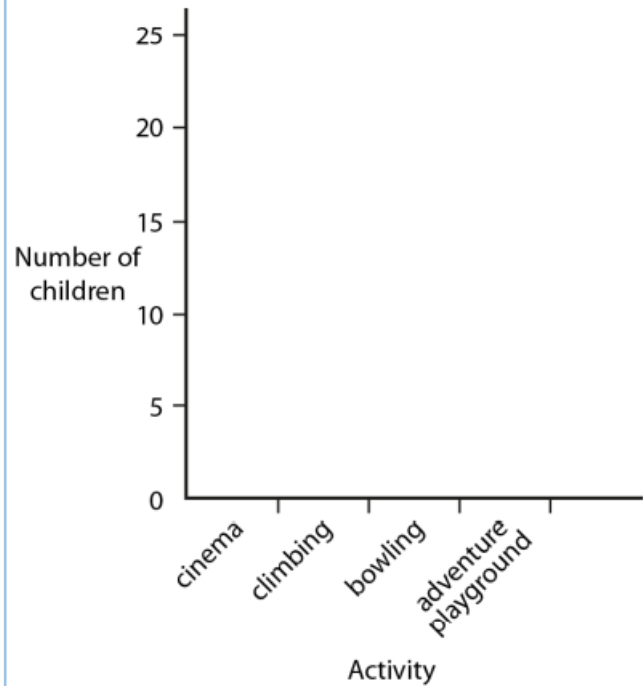
'Fill in the missing numbers.'

$9 = \boxed{} \%$ of 60

36% of $\boxed{} = 9\%$ of $\boxed{}$

$\boxed{} \%$ of $160 = \boxed{} \%$ of 120

'This pie chart shows what 60 Year 6 children voted to do for their end-of-year treat.'

- 'Construct a bar chart to show the number of children who voted for each activity.'

Do you agree that 58% of 3.6m is longer than 43% of 4.9m? Explain your reasoning:

_____

_____

_____

Wednesday 02.03.22

Extra Spicy

BONUS CHALLENGE

In a sale the normal selling price of a jumper is reduced by 20%. The shop owner still makes 4% profit above the price she paid for it. What percentage profit would be made if the jumper was sold at the normal selling price?

'I am thinking of a number. 10% of my number is 15. What is the number I am thinking of?'

'I am thinking of a number. 20% of my number is 15. What is the number I am thinking of?'

'I am thinking of a number. 25% of my number is 15. What is the number I am thinking of?'

'I am thinking of a number. 25% of my number is 30. What is the number I am thinking of?'

'I am thinking of a number. 75% of my number is 90. What is the number I am thinking of?'