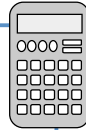
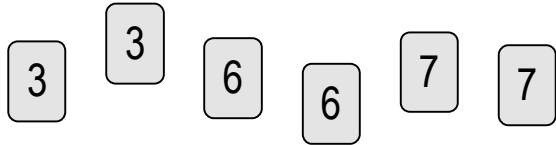


## topic

addition / subtraction



Here are some number cards :



Copy this sum and use five of these number cards to make it work :

$$\begin{array}{r}
 \square \square \square \\
 + \quad \square \square \\
 \hline
 4 \quad 0 \quad 4
 \end{array}$$

Now copy this next one (a subtraction, notice!) and use four of the number cards on the right to make it work :

$$\begin{array}{r}
 \square \square \\
 - \square \square \\
 \hline
 1 \quad 6
 \end{array}$$

1

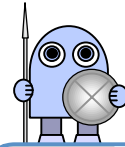
2

3

4

5

6

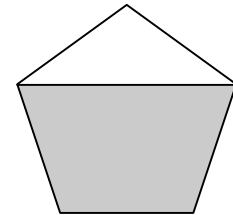


## topic

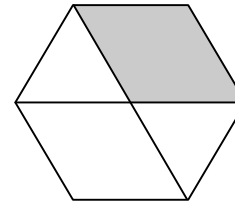
quadrilateral types

Here are some different quadrilaterals drawn inside other regular shapes :

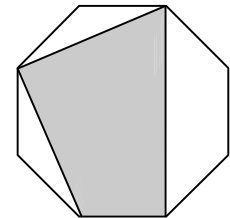
a



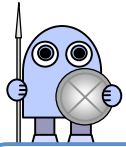
b



c



Write down the correct names of the shaded quadrilaterals . . .

topic  
rounding

- a Write down which of these numbers is nearest to 100 :

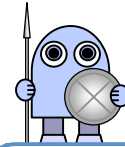
92, 117, 73, 105, 85

- b Write down which of these numbers is nearest to 500 :

509, 478, 425, 327, 522

- c Write down which of these numbers is nearest to 1000 :

1025, 866, 927, 1140, 1099

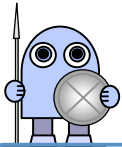
topic  
division

a Calculate  $726 \div 6$

b Calculate  $1830 \div 6$

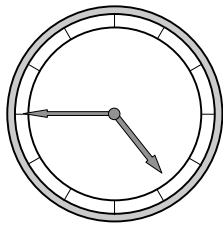
c Calculate  $1446 \div 6$

d Calculate  $642 \div 6$

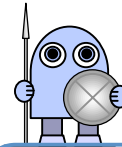


topic  
time

This was the time on the kitchen clock when Tim and Sally got home from school . . .



- What time did the clock show half an hour before this ?
- What time did the clock show twenty minutes after this ?
- Exactly an hour and a quarter after arriving home, Tim and Sally sat down to watch the evening news on TV. What time did the kitchen clock show then ?



topic  
factors



Copy this and find the three prime numbers which multiply to make 42 :

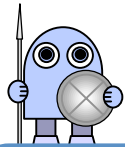
$$\square \times \square \times \square = 42$$

Now copy this and find the three prime numbers which multiply to make 105 :

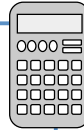
$$\square \times \square \times \square = 105$$

And finally, copy this and find the three prime numbers which multiply to make 130 :

$$\square \times \square \times \square = 130$$



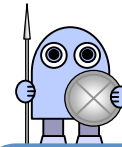
topic  
money



This is how much it costs to visit the Greenwich Time Museum . . .

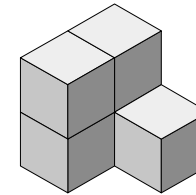
Adults	£4.50
Children	£2.50

- d One Friday afternoon, Mr and Mrs Johnson and their son Ben visited the Time Museum. How much did it cost them to get in ?
- e Altogether on that Friday afternoon, 8 adults and 10 children visited the Museum. How much altogether was paid for these entrance tickets ?
- f On Saturday morning, 10 adults and 16 children visited the Museum. How much did they pay altogether ?
- g Souvenir postcards cost 75p each. The Museum sold £9 worth of postcards on Saturday morning. How many postcards was that ?



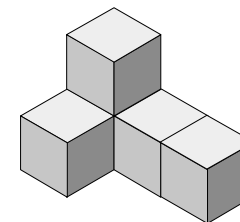
topic  
3D shapes

Sally glued some small cubes together to make this shape :

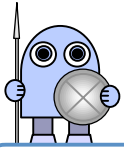


- a How many cubes did Sally use ?
- b Next, Sally decided to turn her shape into a  $2 \times 2 \times 2$  cube. How many more small cubes did she need to add ?

Later, Sally took some more small cubes and glued them together to make another shape :



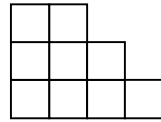
How many small cubes are there in Sally's new shape ?



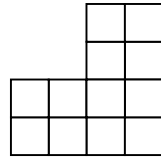
## topic

shapes / fractions

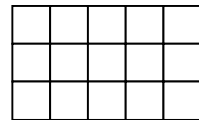
- a Copy this shape exactly and then shade in **one third** of it.



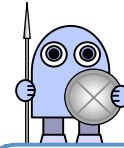
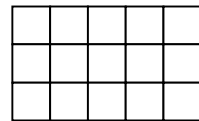
- b Copy this shape exactly and then shade in **one quarter** of it.



- c Copy this shape exactly and then shade in **one fifth** of it.



- d Copy this shape exactly and then shade in **two fifths** of it.

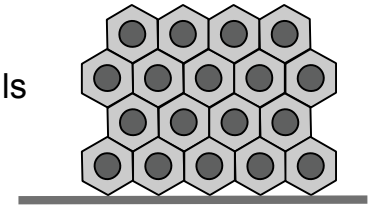


## topic

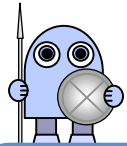
multiplication / division



The Saturn Pencil Company sells pencils in packs of 18 :

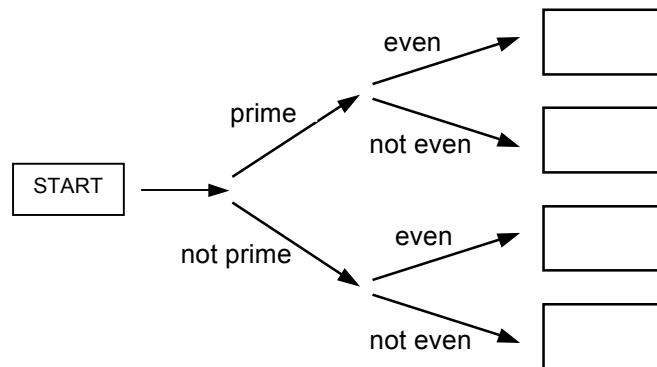


- a Mr Jenkins buys 6 packs of these pencils for his school. How many pencils is this ?
- b Miss Fortune wants to buy 360 pencils for her school. How many packs does she need to buy ?



topic  
classifying

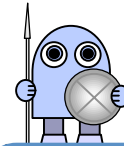
Here is a diagram for sorting numbers :



Make a copy of the diagram and then put these numbers in the correct boxes :

2    9    12    13

(You might not need to use all of the boxes.)



topic  
decimals : division



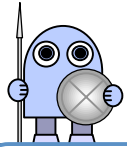
Find the missing number in each of these :

a  $71.41 \div \square = 3.7$

b  $83.08 \div \square = 13.4$

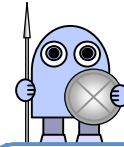
c  $22.65 \div \square = 15.1$

d  $54.72 \div \square = 17.1$



topic  
division

- a      calculate    $210 \div 7$
- b      calculate    $385 \div 7$
- c      calculate    $938 \div 7$
- d      calculate    $2814 \div 7$



topic  
unit fractions

Copy these five boxes :

$$\frac{1}{2} \text{ of } 90 =$$

$$\frac{1}{5} \text{ of } 175$$

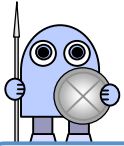
$$\frac{1}{3} \text{ of } 75 =$$

$$\frac{1}{4} \text{ of } 60 =$$

$$\frac{1}{6} \text{ of } 390 =$$

Now write the correct number next to each box. Choose your answers from these :

5, 15, 25, 35, 45, 55, 65, 75



# topic

## sequences

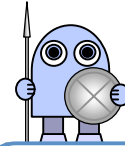


The rule for this sequence of numbers is 'add 4 every time' :

3, 7, 11, 15, 19, 23 ...

Joe's teacher says, 'If this sequence continues in the same way, there will never be an even number in it !'

- Is Joe's teacher correct ?
- Explain as clearly as you can how you know this.



# topic

## equivalent fractions

First, copy these fractions. Then, complete them to make each one equivalent to  $\frac{2}{5}$  :

a  $\frac{\boxed{\phantom{00}}}{10}$

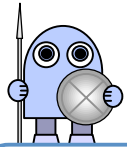
b  $\frac{6}{\boxed{\phantom{00}}}$

c  $\frac{\boxed{\phantom{00}}}{20}$

d  $\frac{10}{\boxed{\phantom{00}}}$

e  $\frac{\boxed{\phantom{00}}}{50}$





# topic

## proportion

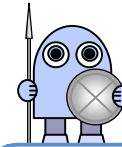


Here is a recipe for flapjack . . .

<div>flapjack for 6 people</div>	butter	150g
	oats	$\frac{1}{2}$ kg
	flour	50g
	brown sugar	200g
	molasses	150g

This recipe is for 6 people.

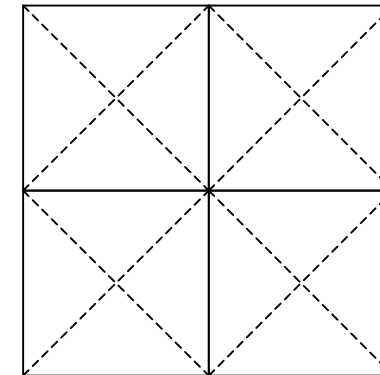
- Melanie makes enough of this flapjack for 9 people. How much butter does she use?
- Lucy's mum, working to the same recipe, makes some flapjack for the family. She uses  $\frac{3}{4}$  kg of oats. How much molasses does she use?
- Sarah makes flapjack in exactly the same way but she uses 500g of brown sugar. How much flour does she use?



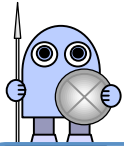
# topic

## shapes / fractions

This diagram shows four squares joined together :

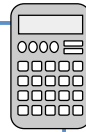


Copy the diagram and shade in  $\frac{3}{8}$  of it.



topic

decimals : mult / div



Find the missing number in each of these :

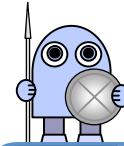
a  $45 \div \square = 1.5$

b  $\square \times 8 = 100$

c  $16 \div \square = 0.5$

d  $0.75^2 = \square$

e  $60 \times \square = 7.5$



topic

equivalent fractions

First, copy these fractions. Then, complete them to make each one equivalent to  $\frac{2}{3}$  :

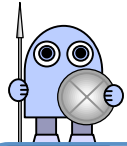
a  $\frac{\square}{9}$

b  $\frac{8}{\square}$

c  $\frac{\square}{18}$

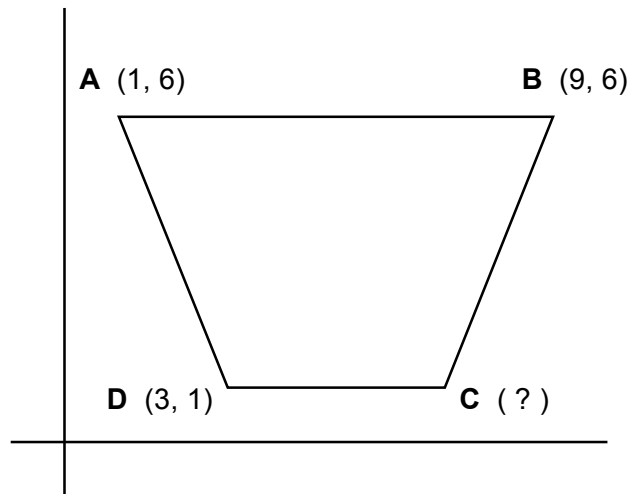
d  $\frac{20}{\square}$

e  $\frac{\square}{60}$



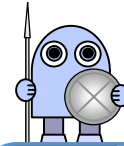
topic  
co-ordinates

Here is a trapezium drawn on a normal co-ordinate grid :



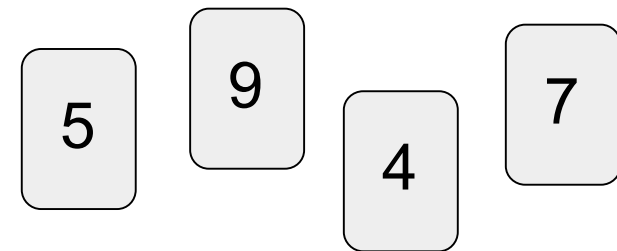
What are the co-ordinates of point C?

\* note : this trapezium has bilateral symmetry



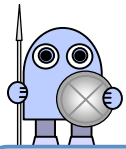
topic  
number properties

Peter has four number-cards in front of him :



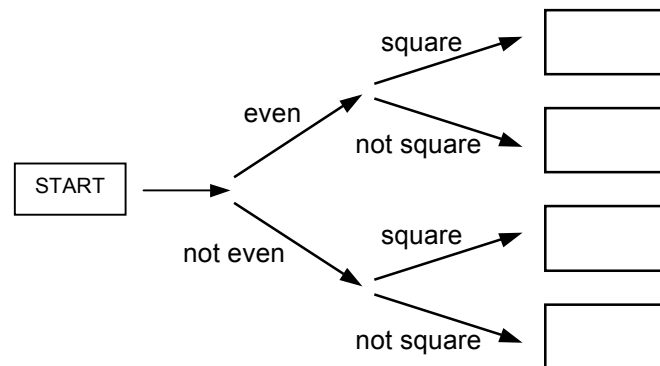
Choose two cards each time and show how he can make the following numbers :

- a a square number
- b a prime number
- c an even multiple of 3
- d a factor of 900



topic  
classifying

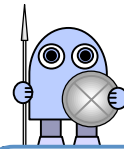
Here is a diagram for sorting numbers :



Make a copy of the diagram and then put these numbers in the correct boxes :

13    28    49    72

(You might not need to use all of the boxes.)

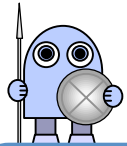


topic  
negative numbers



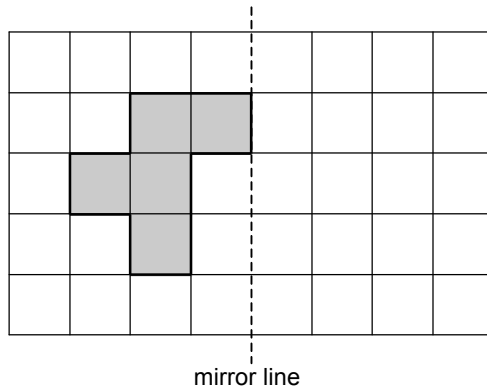
- 2.0    - 1.5    - 1.0    - 0.5    0    0.5    1.0

- Choosing from the list above, write down two numbers which have a difference of 2.
- Which of the numbers above is 1 more than - 0.5 ?
- What do the seven numbers above add up to altogether ?
- Which of these numbers is 2.5 less than 1.0 ?



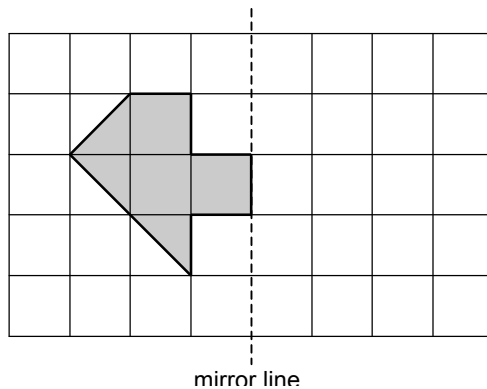
topic  
symmetry

- a Copy this whole diagram . . . and then draw the reflection of the shaded shape in the mirror line:

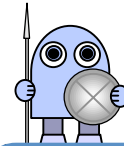


You  
may  
use a  
mirror  
or  
tracing  
paper

- b Now do exactly the same with this one :



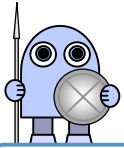
You  
may  
use a  
mirror  
or  
tracing  
paper



topic  
multiplication

- a Calculate  $37 \times 45$
- b Calculate  $206 \times 32$
- c Copy this exactly and then find the missing digits to make it work :

$$\begin{array}{r}
 \square 5 \square \\
 \times \quad \quad 7 \\
 \hline
 3 \quad 1 \quad 7 \quad 1 \\
 \hline
 \end{array}$$



## topic

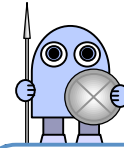
'word' problems / mass

A bottle of Finefur Ferret Oil contains 2 litres of liquid specially designed to keep ferrets' fur looking sleek and healthy.



Sam uses 80 millilitres of this oil every week on his ferret Basil.

- a How many weeks will a new bottle last?
- b About how many bottles a year will Sam need to buy?



## topic

factors



Copy this and find the three prime numbers which multiply to make 78 :

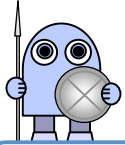
$$\square \times \square \times \square = 78$$

Now copy this and find the three prime numbers which multiply to make 66 :

$$\square \times \square \times \square = 66$$

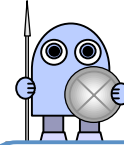
And finally, copy this and find the three prime numbers which multiply to make 165 :

$$\square \times \square \times \square = 165$$



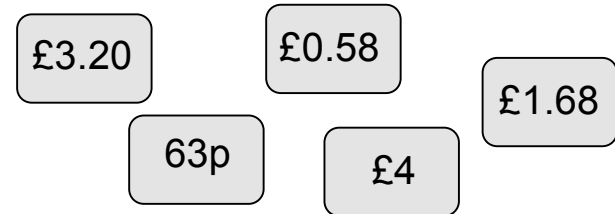
topic  
division

- a Calculate  $288 \div 4$
- b Calculate  $380 \div 4$
- c Calculate  $548 \div 4$
- d Calculate  $1232 \div 4$



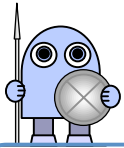
topic  
money

- a Write these amounts of money in order of size, starting with the smallest amount :



- b Now write these amounts of money in order of size, again starting with the smallest amount :





## topic

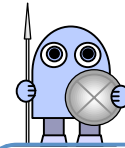
fractions / decimals

Copy this table exactly :

	greater than $\frac{1}{2}$	less than $\frac{1}{2}$
0.7	✓	
0.25		
$\frac{7}{11}$		
0.45		
0.08		
$\frac{9}{20}$		

Next, put a tick in each row to complete the table.

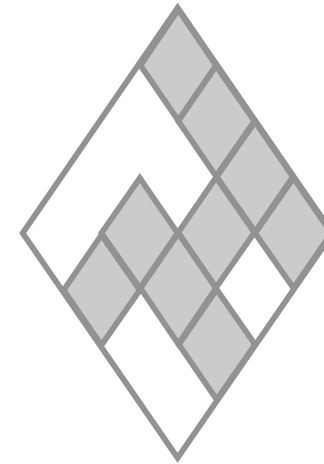
*(One has been done for you.)*



## topic

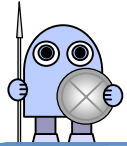
shapes / fractions

Here is a rhombus with some small shaded rhombuses drawn inside it. All the small rhombuses are identical.



What fraction of the large rhombus is shaded?





## topic

addition / subtraction

Copy these . . . and then write in the missing numbers :

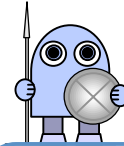
a  $75 + \square = 120$

b  $34 - \square = 18$

c  $11 + \square + 8 = 32$

d  $(8 \times 3) - \square = 18$

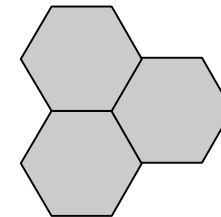
e  $\square \div 8 = 10$



## topic

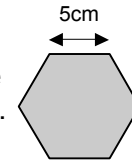
quadrilateral types

Millie has a set of wooden tiles. She makes this shape using three hexagon tiles :



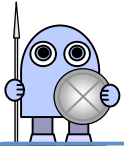
Not actual size !

These hexagons have sides of 5 centimetres.



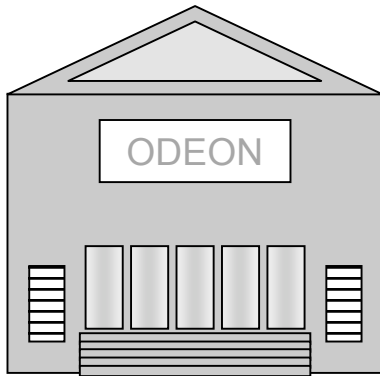
- What is the perimeter of one of these tiles ?
- What is the perimeter of Millie's shape ?

Don't use a ruler for these !



## topic

'word' problems / money

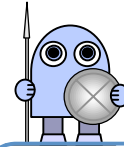


For an end-of-year treat, the Year 6 pupils at Greenway School go to the cinema – along with some teachers and parents.

Tickets for adults are £10 each and those for children are £6 each.

Altogether there are 40 in the group and the total cost of tickets for all of them is £300.

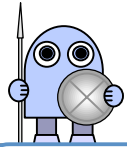
How many children are there in the group?



## topic

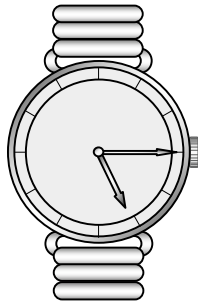
fraction of a number

- a Half of a number is 73. What is the number?
- b Two-thirds of a number is 36. What is the number?
- c Three-quarters of a number is 51. What is the number?
- d One and a half times a number is 48. What is the number?

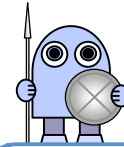


topic  
time

This was the time on Simon's watch when he set off to cycle to his friend's house . . .



- What time did the watch show twenty minutes before this ?
- What time did the watch show thirty-five minutes after this ?
- The whole journey took Simon three-quarters of an hour. What time was it when he arrived ?



topic  
equivalent fractions

First, copy these fractions. Then, complete them to make each one equivalent to  $\frac{3}{4}$  :

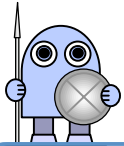
a  $\frac{\boxed{\phantom{00}}}{8}$

b  $\frac{12}{\boxed{\phantom{00}}}$

c  $\frac{\boxed{\phantom{00}}}{20}$

d  $\frac{30}{\boxed{\phantom{00}}}$

e  $\frac{\boxed{\phantom{00}}}{40}$



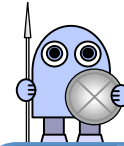
## topic

reading charts / tables

This chart shows how many boys and how many girls there are in each year-group at Sally's school :

	boys	girls
Year 3	25	27
Year 4	26	30
Year 5	29	19
Year 6	28	22

- In Sally's year-group there are 19 girls. How many more boys are there than girls in this year-group ?
- Hamish says, 'There are six more boys than girls in my year-group!' Which year-group is he in ?
- Which year-group has the largest number of pupils ?



## topic

basic number operations

Copy these . . . and then write in the missing numbers :

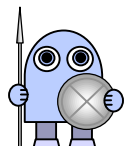
a  $\square - 19 = 120$

b  $23 + \square = 51$

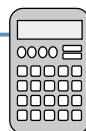
c  $(7 \times 5) - \square = 28$

d  $30 \times 5 = \square$

e  $\square \div 10 = 17$



topic  
proportion

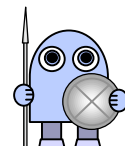


Here is a recipe for vegetable broth . . .

vegetable broth for 4 people	4	carrots
	2	large potatoes
	1	medium-sized onion
	2	oxo cubes
	1	litre of water

This recipe is for 4 people.

- Joe makes enough broth for 8 people. How many carrots does he use ?
- Jennifer uses the same recipe to make some vegetable broth. She uses 3 large potatoes and 6 carrots. How much water does she use ?
- Zoe makes vegetable broth in exactly the same way but she uses  $2\frac{1}{2}$  litres of water. How many people is she cooking for ?



topic  
fraction of a number



Copy these five boxes :

$$\frac{1}{2} \text{ of } 70 =$$

$$\frac{1}{5} \text{ of } 25 =$$

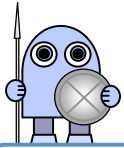
$$\frac{1}{3} \text{ of } 135 =$$

$$\frac{1}{4} \text{ of } 100 =$$

$$\frac{1}{6} \text{ of } 450 =$$

Now write the correct number next to each box. Choose your answers from these :

5, 15, 25, 35, 45, 55, 65, 75



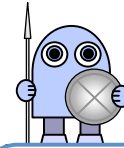
## topic

fractions / decimals

Copy this table exactly :

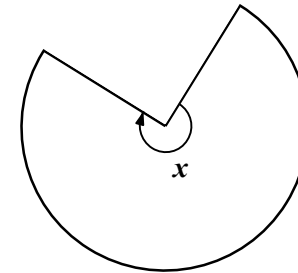
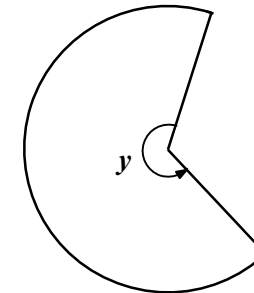
	greater than $\frac{1}{2}$	less than $\frac{1}{2}$
0.3		✓
0.05		
$\frac{17}{30}$		
0.55		
0.35		
$\frac{6}{13}$		

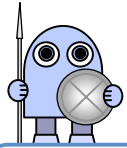
Next, put a tick in each row to complete the table.

*(One has been done for you.)*

## topic

angles

This shape is **three-quarters of a circle** :How many degrees is **angle x** ?This shape is **two-thirds of a circle** :How many degrees is **angle y** ?



# topic

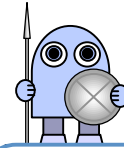
## money

This is what you can buy in the café at the Millennium Pool . . .



tea	80p
coffee	£1.20
fruit juice	£1.00
scone	90p
crisps	50p

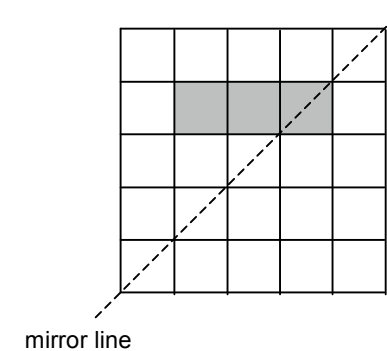
- John has a fruit juice and a scone. How much does he have to pay ?
- Ben has a cup of tea and his mum has a cup of coffee. How much do they pay altogether ?
- Jenny pays £1.30 for her snack. What does she buy ?
- During one whole afternoon the café sells £24 worth of coffee. How many cups is that ?



# topic

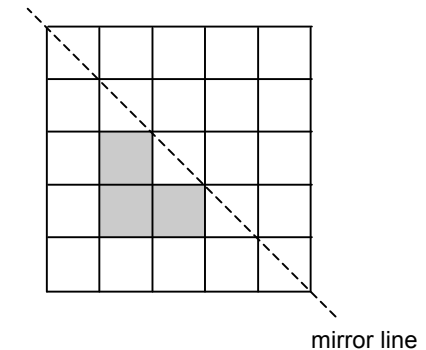
## symmetry

Copy this shape **exactly** (using squared paper) :

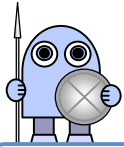


Next, shade in **two more squares** to make the design symmetrical about the mirror line.

Now copy the design below and shade in **three more squares** to make it symmetrical about the mirror line.



*\* You may use a mirror or tracing paper for any part of this question.*



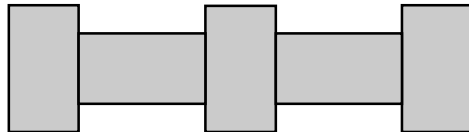
## topic

angles / perimeter

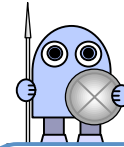
- a An isosceles triangle has an angle of  $80^\circ$ . What could the other two angles be?

*\*There are two possible answers to this question; give **both** of them.*

- b Mary has some tiles which measure exactly 5cm x 9cm. She makes this shape using five of the tiles :



What's the perimeter of Mary's shape?



## topic

sequences

Jenny makes up this rule for a sequence :

*'double your number and add 3 to get the next number'*

Here are three sequences which follow Jenny's rule. Copy each one and write in the next two numbers :

a

3

9

21



b

 $2\frac{1}{4}$  $7\frac{1}{2}$ 



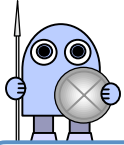
c

1.2

5.4

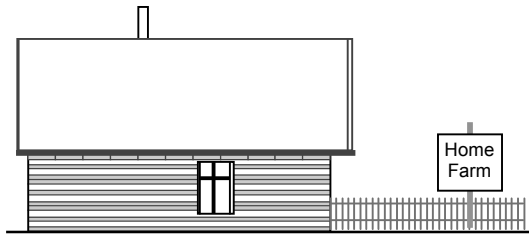
13.8





## topic

'word' problems

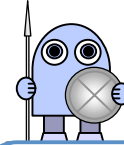


Farmer Smith keeps piglets and lambs.

He keeps the piglets until they weigh 30 kg and then he sends them to market; he keeps the lambs until they weigh 50 kg and then he sends them to market.

One day he sends 15 animals to market and altogether they weigh 630 kg.

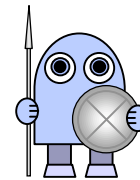
How many of these animals are piglets?



## topic

fraction of a number

- a Half of a number is 37. What is the number?
- b Two-fifths of a number is 24. What is the number?
- c Three-quarters of a number is  $1\frac{1}{2}$ . What is the number?
- d Two and a half times a number is 125. What is the number?



## Year 6 practice cards