Key Stage 3: End of Term Test 1

Name: _____

Teacher: _____
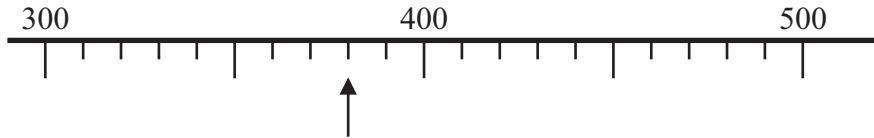
Answer ALL questions.

Write your answers in the spaces provided.

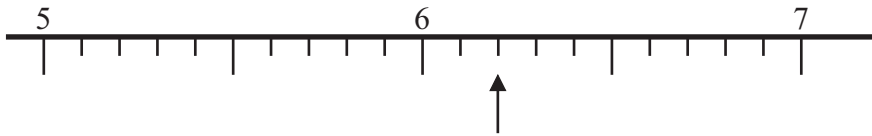**You must write down all stages in your working.**

You must NOT use a calculator.

1.

(a) Write down the number marked by the arrow.

....

(1)

(b) Write down the number marked by the arrow.

....

(1)

(c) Find the number 34 on the number line.
Mark it with an arrow ($\uparrow$).

(1)

(Total for Question 1 is 3 marks)

2. Daniel buys

   one loaf of bread costing £1.18
   one tub of spread costing 94p
   two jars of strawberry jam.

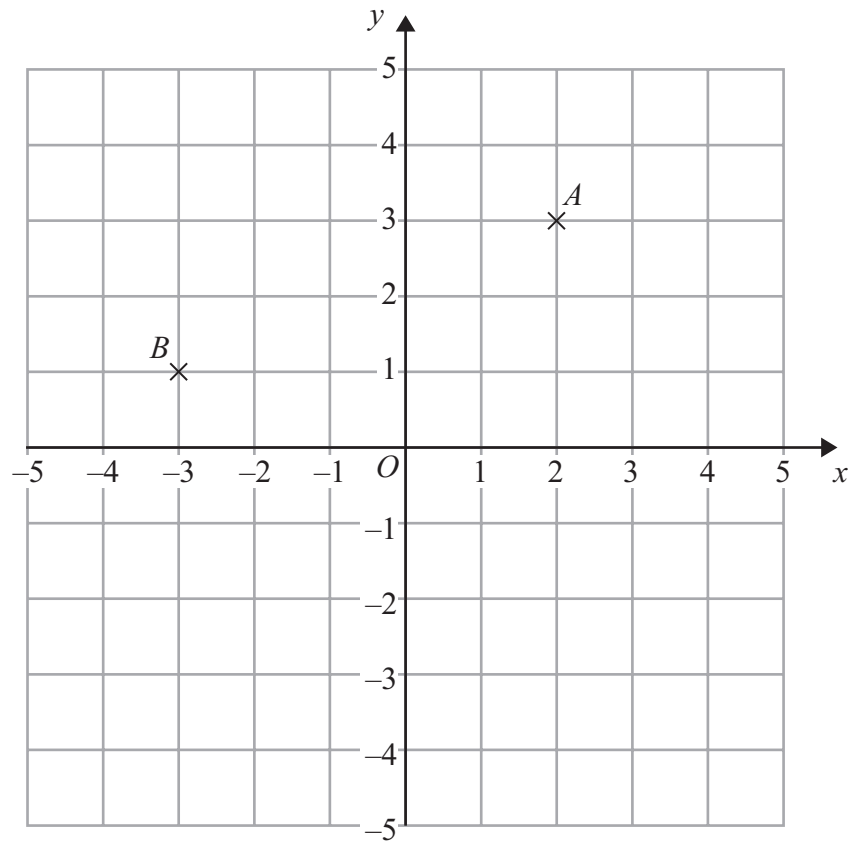Daniel pays with a £5 note.
He gets 30p change.

Work out the cost of **one** jar of strawberry jam.

£ ....

(Total for Question 4 is 3 marks)

3.

(a) (i) Write down the coordinates of the point *A*.

(............................ , ...)

(ii) Write down the coordinates of the point *B*.

(............................ , ...)

(2)

(b) On the grid, mark with a cross (✕) the point (3, –4).
Label this point *C*.

(1)

(Total for Question 5 is 3 marks)

4.

Samina recorded the maximum temperature and the minimum temperature on each of six days in January.

The table shows her results.

	Mon	**Tues**	**Wed**	**Thurs**	**Fri**	**Sat**
Maximum temperature	1 °C	3 °C	2 °C	0 °C	3 °C	4 °C
Minimum temperature	− 4 °C	−2 °C	− 4 °C	−5 °C	−3 °C	−2 °C

(a) Write down the lowest temperature.

.... °C

(1)

(b) Work out the difference between the maximum temperature on Wednesday and the minimum temperature on Wednesday.

.... °C

(1)

The minimum temperature on Sunday was 5 °C higher than the minimum temperature on Saturday.

(c) Work out the minimum temperature on Sunday.

.... °C

(1)

(Total for Question 6 is 3 marks)

5. The table gives information about five printers.

Printer	Cost	Wi-fi	Print from a camera	Printing cost per page
Smart	£260	✓	✓	4p
Office	£138		✓	2p
Kanon	£285	✓	✓	5p
Elton	£160	✓		4p
Quikprint	£115		✓	3p

(a) Which printer costs the most?

....

(1)

(b) Which printers do **not** have wi-fi?

....

(1)

(c) Which printer has a printing cost per page of 4p **and** can print from a camera?

....

(1)

(Total for Question 9 is 3 marks)

6.

Diagram **NOT** accurately drawn

(i) Work out the size of angle x.

....°

(ii) Give a reason for your answer.

....

....

(Total for Question 10 is 2 marks)

7. Kaz rolled a dice 10 times.

Here are her scores.

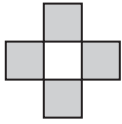2   6   5   4   4   2   1   3   4   3

(a) Find the mode.

....
(1)

(b) Work out the mean.

....
(2)

(c) Work out the range.

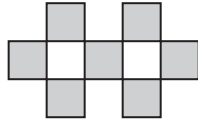.......................................
(2)

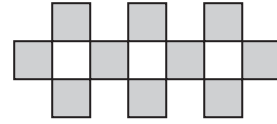**(Total for Question 13 is 5 marks)**

8.

Here are some patterns made from grey tiles.
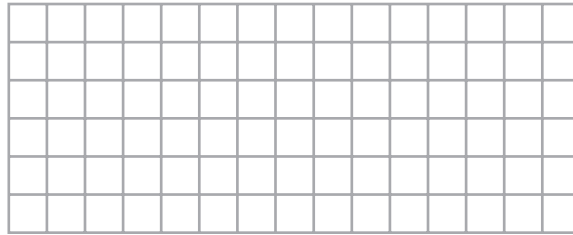

Pattern number 1   Pattern number 2   Pattern number 3

(a) Draw Pattern number 4 on the grid below.

(1)

(b) How many grey tiles are needed for Pattern number 10?

....

(2)

Jenny says,

'I will need exactly 46 grey tiles for Pattern number 18'.

(c) Is Jenny right?
You must give a reason for your answer.

....

....

....

(2)

(Total for Question 15 is 5 marks)

9.

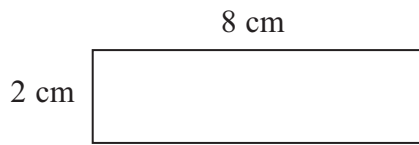The diagram shows a rectangle and a square.

8 cm

2 cm

Diagram **NOT**
accurately drawn

The perimeter of the rectangle is the same as the perimeter of the square.

Work out the length of one side of the square.

.... cm

(Total for Question 14 is 4 marks)

P 4 0 6 4 4 A 0 1 5 2 8

10.

Sue has a bag of 18 sweets.

  5 of the sweets are blue
  7 of the sweets are red
  6 of the sweets are green

Sue takes at random a sweet from the bag.

Write down the probability that Sue

(i) takes a red sweet,

....

(ii) does **not** take a green sweet,

....

(iii) takes a yellow sweet.

....

(Total for Question 18 is 3 marks)

11.

(a) Solve $b - 7 = 12$

$b =$ ....
(1)

(b) Solve $5e = 40$

$e =$ ....
(1)

(c) Solve $4m + 6 = 15$

$m =$ ....
(2)

(Total for Question 19 is 4 marks)

12. Rani has 250 DVDs.

42% of her DVDs are thrillers.

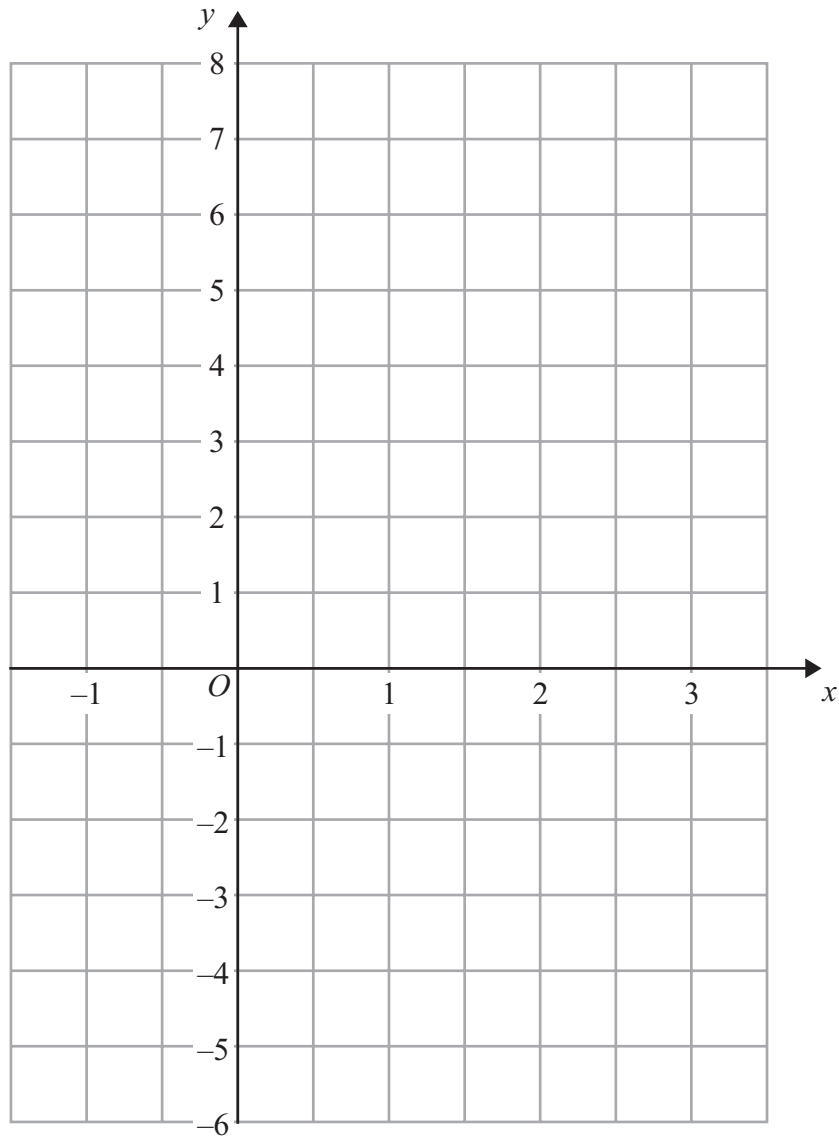$\dfrac{2}{5}$ of her DVDs are comedies.

The rest of her DVDs are science fiction.

How many science fiction DVDs does Rani have?

....

(Total for Question 20 is 4 marks)

13.

On the grid, draw the graph of $y = 3x - 2$ for values of x from -1 to 3

14.

Pat and Julie share some money in the ratio 2 : 5
Julie gets £45 more than Pat.

How much money did Pat get?

£...

(Total for Question 22 is 3 marks)

15.

Potatoes cost £9 for a 12.5 kg bag at a farm shop.
The same type of potatoes cost £1.83 for a 2.5 kg bag at a supermarket.

Where are the potatoes the better value, at the farm shop or at the supermarket?
You must show your working.

(Total for Question 23 is 4 marks)

16.

Here are the ingredients needed to make 12 shortcakes.

> **Shortcakes**
>
> Makes **12** shortcakes
>
> 50 g   of sugar
> 200 g   of butter
> 200 g   of flour
> 10 m*l* of milk

Liz makes some shortcakes.
She uses 25 m*l* of milk.

(a) How many shortcakes does Liz make?

....
(2)

Robert has   500 g of sugar
               1000 g of butter
               1000 g of flour
               500 m*l* of milk

(b) Work out the greatest number of shortcakes Robert can make.

....
(2)

(Total for Question 23 is 4 marks)

17.

Mr Weaver's garden is in the shape of a rectangle.

In the garden

there is a patio in the shape of a rectangle
and two ponds in the shape of circles with diameter 3.8 m.
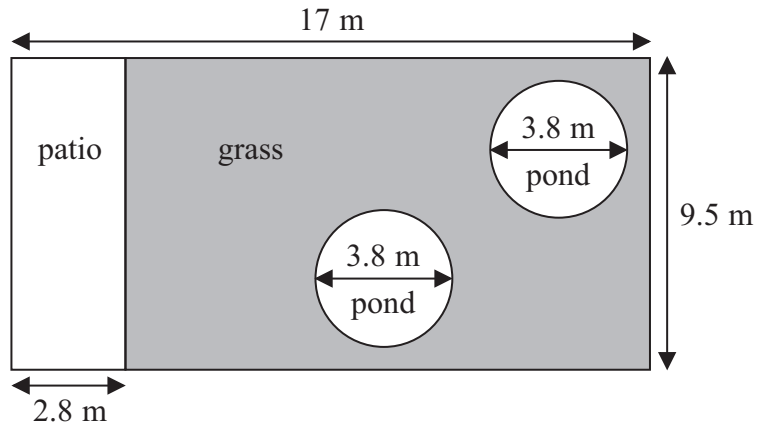
The rest of the garden is grass.

17 m

Diagram **NOT**
accurately drawn

patio   grass

3.8 m
pond

3.8 m
pond

9.5 m

2.8 m

Mr Weaver is going to spread fertiliser over all the grass.
One box of fertiliser will cover 25 m² of grass.

How many boxes of fertiliser does Mr Weaver need?
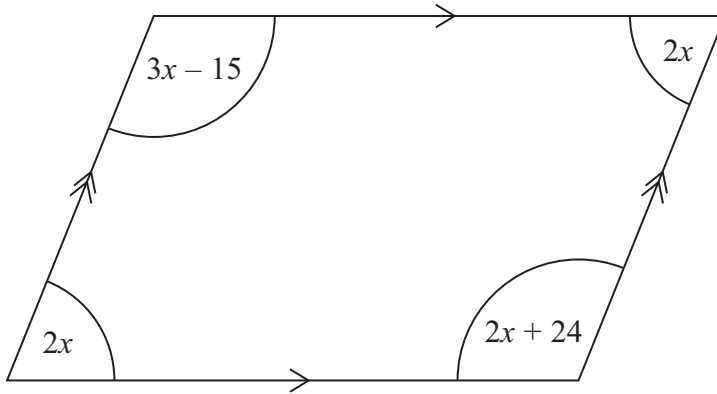You must show your working.

(Total for Question 27 is 5 marks)

18.

Diagram **NOT** accurately drawn

The diagram shows a parallelogram.
The sizes of the angles, in degrees, are

2x
3x – 15
2x
2x + 24

Work out the value of x.

x = ...

(Total for Question 27 is 3 marks)