

Key Stage 3: End of Term Test 6

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 these numbers in order of size.
Start with the smallest number.

52 102 25 120 55

.....
(1)

- (b) Write these numbers in order of size.
Start with the smallest number.

6 -2 0 -5 3

.....
(1)

- (c) Write these numbers in order of size.
Start with the smallest number.

0.63 0.633 0.603 0.6 0.06

.....
(1)

(Total for Question 1 is 3 marks)

2. The table shows some information about the numbers of medals won by Great Britain in the 2012 Olympic Games and in the 2012 Paralympic Games.

	Gold	Silver	Bronze
Olympic Games	29	17	19
Paralympic Games	34	43	43

Great Britain won more medals in total in the Paralympic Games than in the Olympic Games.

How many more medals in total?

.....
(Total for Question 2 is 3 marks)

3. Here are the first four terms of a number sequence.

3 7 11 15

- (a) Write down the next term of this sequence.

.....
(1)

The 50th term of this number sequence is 199

- (b) Write down the 51st term of this sequence.

.....
(1)

The number 372 is **not** a term of this sequence.

- (c) Explain why.

.....
.....
(1)

(Total for Question 3 is 3 marks)

4. Farah recorded the minimum temperature, in °C, on each of seven days in January.

Here are her results.

Day	Mon	Tues	Wed	Thur	Fri	Sat	Sun
Temp (°C)	-2	-1	2	0	-3	4	7

- (a) Work out the difference between the temperature on Tuesday and the temperature on Wednesday.

..... °C
(1)

- (b) Work out the mean of the temperatures Farah recorded.

..... °C
(2)

(Total for Question 4 is 3 marks)

5.

You can use these rules to change temperatures from $^{\circ}\text{C}$ to $^{\circ}\text{F}$.

approximate rule

Multiply the $^{\circ}\text{C}$ temperature by 2 and then add 30

exact rule

Multiply the $^{\circ}\text{C}$ temperature by 1.8 and then add 32

Amy uses the **approximate rule** to change 20°C to $^{\circ}\text{F}$.

Dan uses the **exact rule** to change 20°C to $^{\circ}\text{F}$.

(a) Work out the difference between Amy's result and Dan's result.

..... $^{\circ}\text{F}$
(4)

Jade uses the **approximate rule** to change a temperature from $^{\circ}\text{C}$ to $^{\circ}\text{F}$.
The result is 110°F .

(b) What $^{\circ}\text{C}$ temperature did Jade change to $^{\circ}\text{F}$?

..... $^{\circ}\text{C}$
(3)

(Total for Question 5 is 7 marks)

6.

(a) Simplify $a \times c \times 3$

.....
(1)

(b) Simplify $p \times p \times p$

.....
(1)

(c) Simplify $5x - 4y + 3x - 3y$

.....
(2)

(Total for Question 6 is 4 marks)

7.

Sarah wants a music magazine each month for a year.

She can

pay £3.50 each month

or

pay £37.20 for the year.

Sarah pays £37.20 for the year.

How much cheaper is this than paying £3.50 each month?

£.....

(Total for Question 7 is 3 marks)

8.

Here is a list of numbers.

12 19 12 15 11 15 12 13 17

Find the median.

.....

(Total for Question 8 is 2 marks)

9.

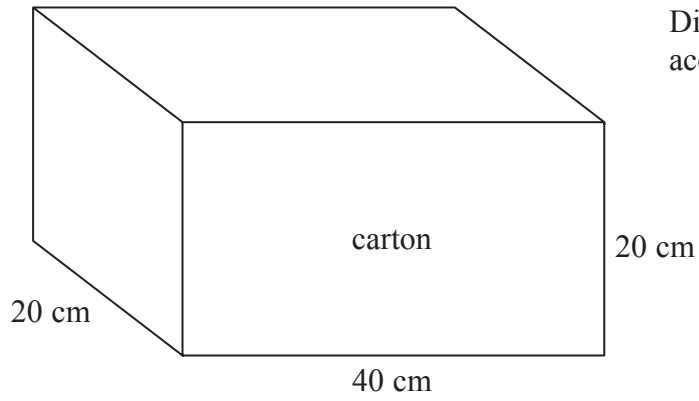
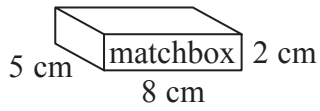


Diagram **NOT** accurately drawn

A matchbox is 5 cm by 8 cm by 2 cm.
A carton is 20 cm by 40 cm by 20 cm.

The carton is completely filled with matchboxes.

Work out the number of matchboxes in the carton.

(Total for Question 9 is 3 marks)

* 10.

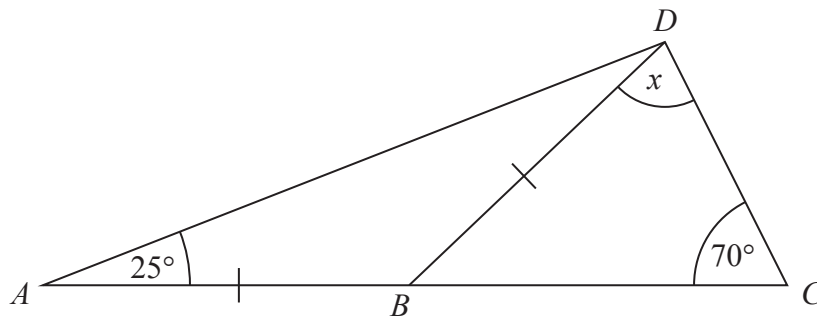


Diagram **NOT**
accurately drawn

ABC is a straight line.

$AB = BD$

Angle $BAD = 25^\circ$

Angle $BCD = 70^\circ$

Work out the size of the angle marked x .

Give reasons for your answer.

(Total for Question 10 is 4 marks)

11.

$$x = -5$$

$$y = 2$$

(a) Work out the value of $3x + 4y$

.....
(2)

Janet buys p packets of sweets.
There are 10 sweets in each packet.

(b) (i) Write down an expression, in terms of p , for the total number of sweets Janet buys.

.....
Janet eats 7 of the sweets.

(ii) Write down an expression, in terms of p , for the number of sweets Janet has now.

.....
(2)

(Total for Question 11 is 4 marks)

12.

Work out $\frac{3}{5} - \frac{1}{3}$

.....
(Total for Question 12 is 2 marks)

13.

Here is a list of numbers.

2 3 4 12 13 14 15 22 24

(a) From this list, write down

(i) a factor of 6

(ii) a multiple of 6

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

Demelza says,

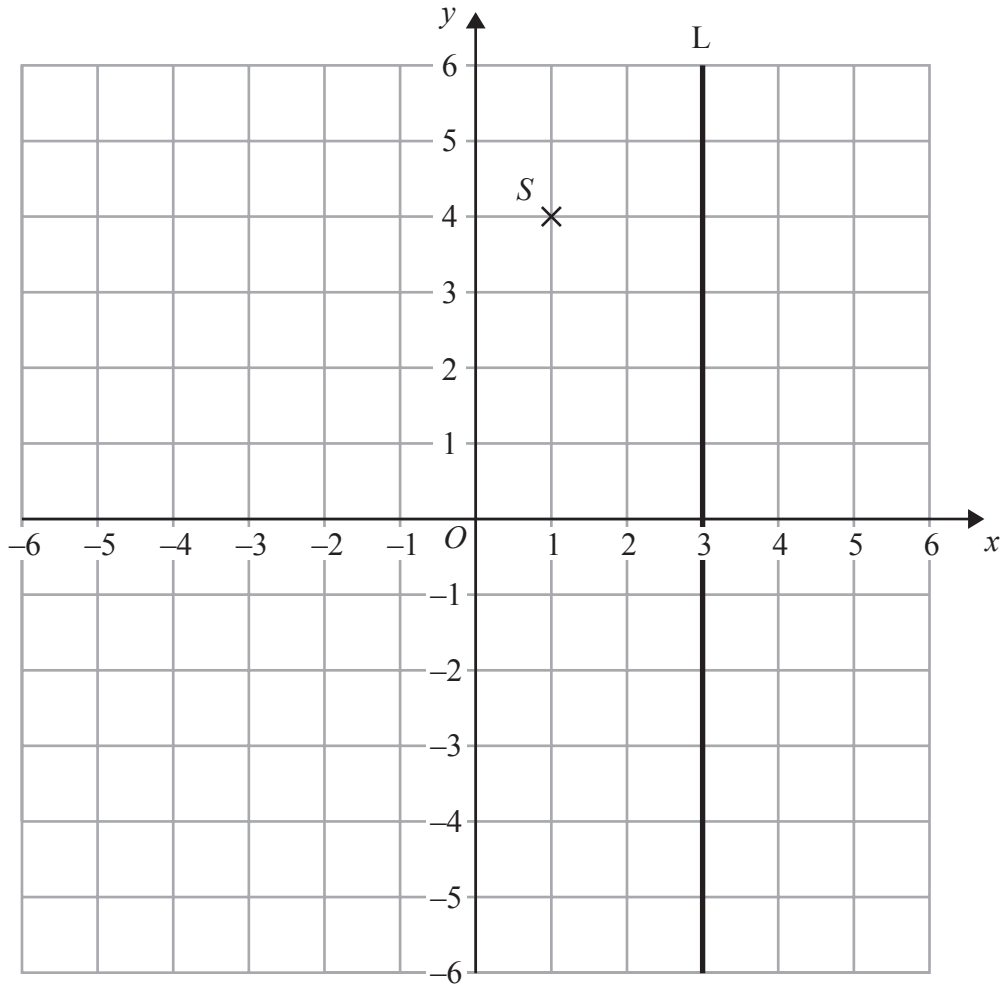
“All prime numbers are odd numbers”.

(b) Demelza is wrong.
Explain why.

.....
.....
(1)

(Total for Question 13 is 3 marks)

14.



(a) Write down the coordinates of the point S .

(.....,)
(1)

The coordinates of the point T are $(-3, 2)$.

(b) On the grid, mark this point with a cross (\times).
Label the point T .

(1)

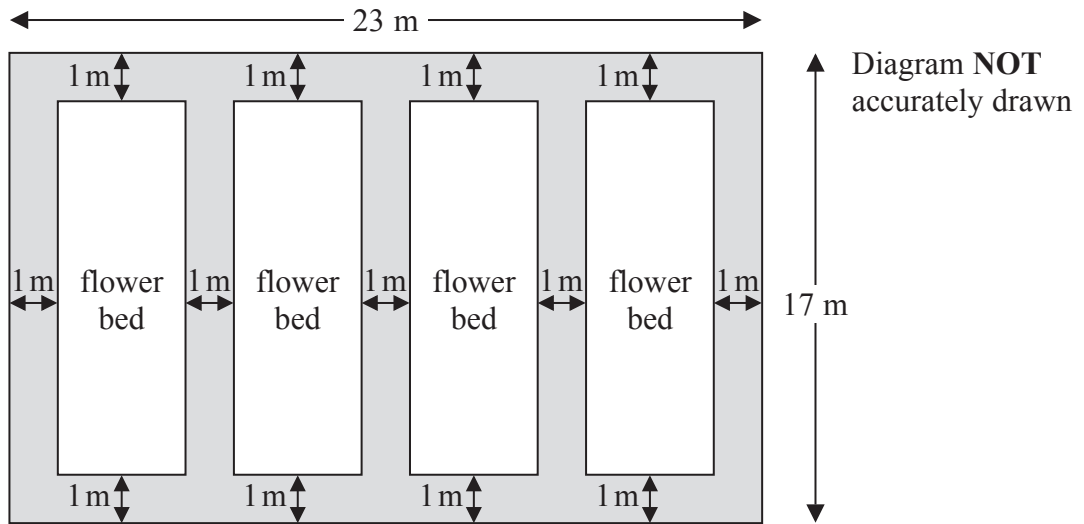
(c) Write down an equation of the line L .

.....
(1)

(Total for Question 14 is 3 marks)

15.

The diagram shows a garden with 4 flower beds.
The garden is a rectangle, 23 m by 17 m.



Each flower bed is a rectangle with the same length and the same width.

Work out the length and the width of a flower bed.

length = m

width = m

(Total for Question 15 is 3 marks)

16.

Mr Brown and his 2 children are going to London by train.

An adult ticket costs £24

A child ticket costs £12

Mr Brown has a Family Railcard.

Family Railcard gives

$\frac{1}{3}$ off adult tickets

60% off child tickets

Work out the total cost of the tickets when Mr Brown uses his Family Railcard.

£.....

(Total for Question 16 is 4 marks)

*17 The diagram shows the plan of a small field.

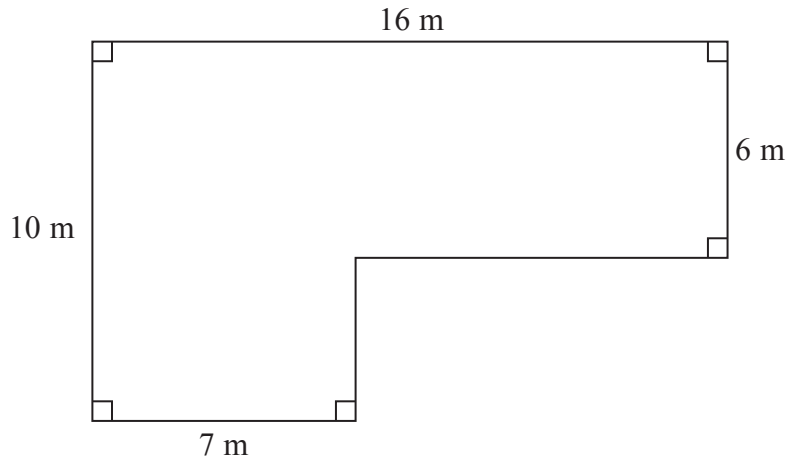


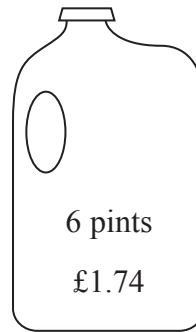
Diagram **NOT**
accurately drawn

Kevin is going to keep some pigs in the field.
Each pig needs an area of 36 square metres.

Work out the greatest number of pigs Kevin can keep in the field.

(Total for Question 17 is 4 marks)

*18 Milk is sold in two sizes of bottle.



A 4 pint bottle of milk costs £1.18

A 6 pint bottle of milk costs £1.74

Which bottle of milk is the best value for money?

You must show all your working.

(Total for Question 18 is 3 marks)
