

# Key Stage 3: End of Term Test 3

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

Teacher: \_\_\_\_\_



1.

At 7 am the temperature was  $-3^{\circ}\text{C}$ .  
By noon the temperature was  $11^{\circ}\text{C}$  higher.

(a) Write down the temperature at noon.

..... $^{\circ}\text{C}$

(1)

At 9 pm the temperature was  $-5^{\circ}\text{C}$ .  
By midnight the temperature had gone down by  $7^{\circ}\text{C}$ .

(b) Write down the temperature at midnight.

..... $^{\circ}\text{C}$

(1)

**(Total for Question 4 is 2 marks)**

2.

There is enough space for 80 boxes of cornflakes in a stockroom.

On Monday there are 65 boxes of cornflakes in the stockroom.

On Tuesday 17 boxes of cornflakes are taken out of the stockroom.

On Wednesday 29 boxes of cornflakes are put into the stockroom.

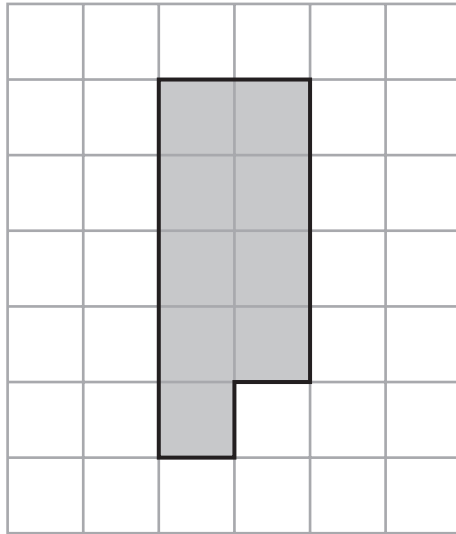
Work out how many more boxes of cornflakes can now be put into the stockroom.

.....

**(Total for Question 5 is 3 marks)**



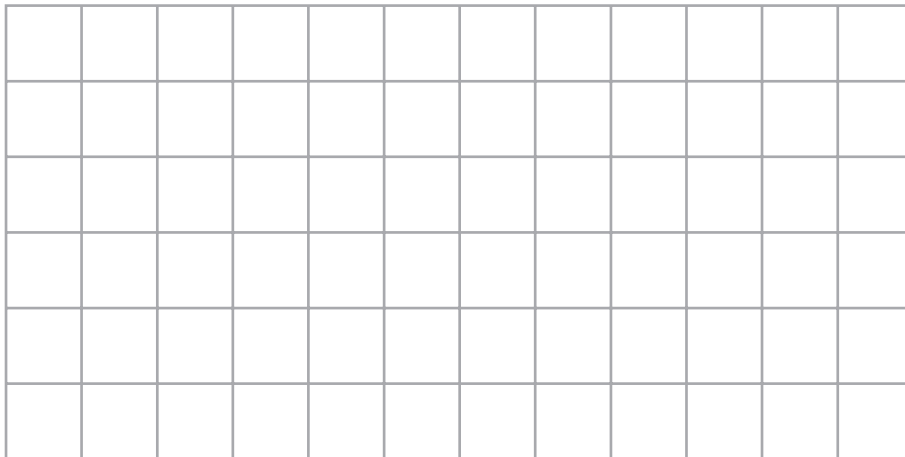
3. The shaded shape is drawn on a grid of centimetre squares.



- (a) Find the perimeter of the shaded shape.

.....  
(2)

- (b) On the grid below, draw a square with the same **area** as the shaded shape.

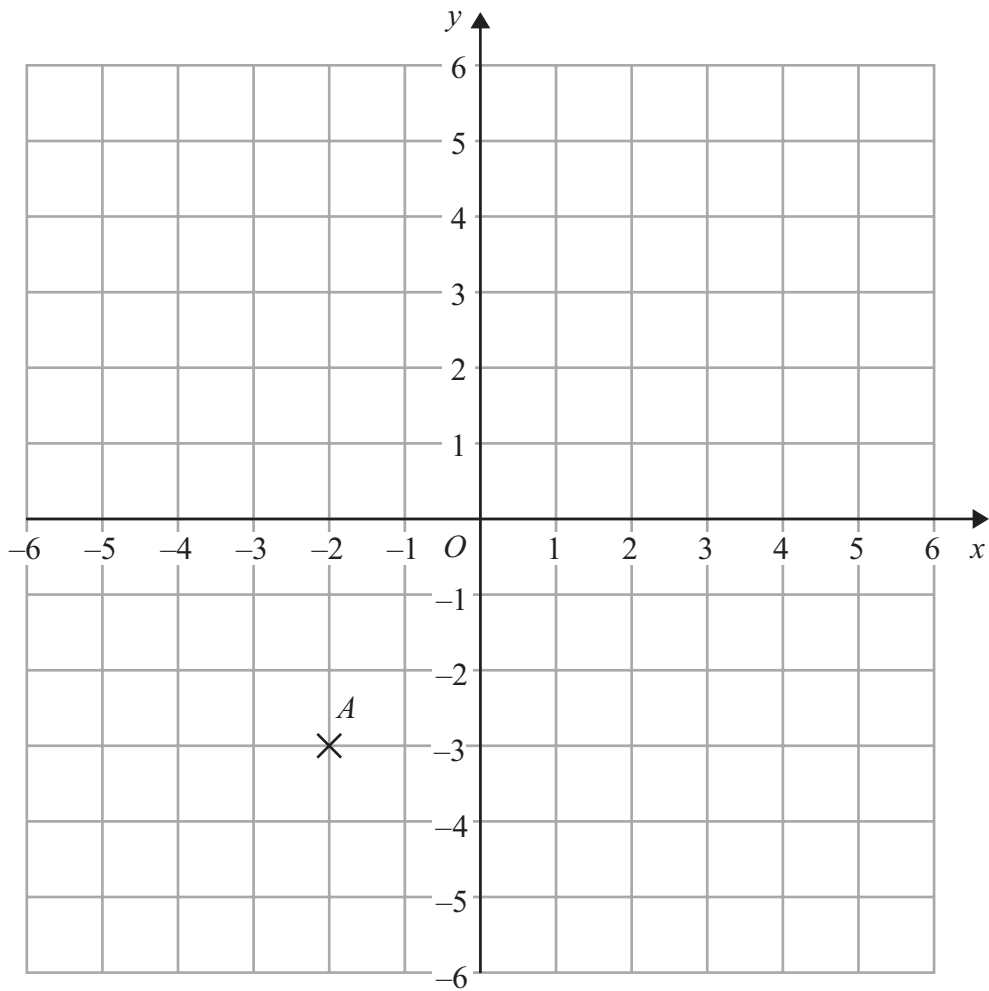


(1)

(Total for Question 8 is 3 marks)



4.



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

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

(ii) On the grid, mark with a cross (X) the point with coordinates  $(5, 2)$ .  
Label this point  $B$ .

(2)

(b) On the grid, draw the line with equation  $y = 3$

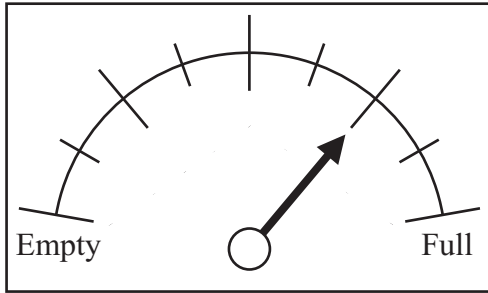
(1)

**(Total for Question 9 is 3 marks)**

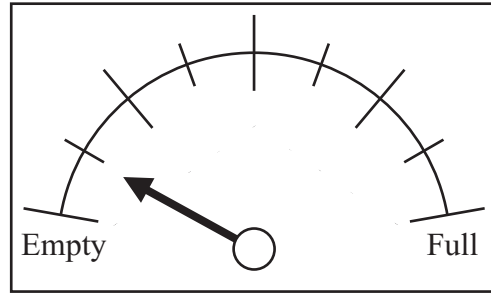


5.

The diagram shows a car fuel gauge at the start of a journey and at the end of the journey.



Start



End

There are 80 litres of fuel in the fuel tank when it is full.

(a) Work out how many litres of fuel the car used on this journey.

..... litres  
(3)

On a different journey, the car went 180 kilometres.  
The car went 15 kilometres for each litre of fuel used.

(b) How many litres of fuel did the car use?

..... litres  
(2)

(Total for Question 12 is 5 marks)

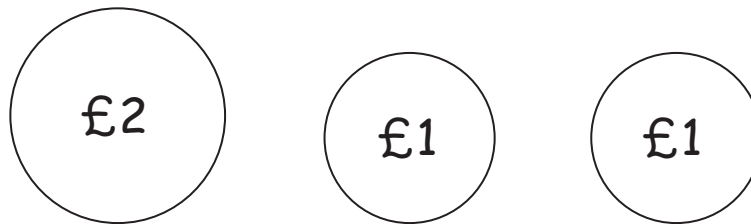


6.

An ice cream van has this price list.

Price List	
Choc Ice	£1.25
Tub	£1.15
Cone	85p

Mitch only has these three coins.  
He has no other money.



Mitch wants to buy a choc ice, a tub and 2 cones.

Has Mitch got enough money?  
You must show your working.

(Total for Question 13 is 3 marks)



7.

Here are the first five terms of a number sequence.

2    7    12    17    22

(a) (i) Write down the next term in the sequence.

.....

(ii) Explain how you worked out your answer.

.....

.....

(2)

(b) 45 is **not** a term in this number sequence.

Explain why.

.....

.....

(1)

(Total for Question 14 is 3 marks)

8.

Here is a number machine.



Complete this table for the number machine.

Input	Output
0.5	.....
2	15
3	.....
.....	33

(Total for Question 15 is 3 marks)



9.

Here is a list of numbers.

11    12    13    14    15    16    17    18    19    20

From the list, write down

(a) a factor of 24

.....  
(1)

(b) a multiple of 7

.....  
(1)

(c) a square number

.....  
(1)

**(Total for Question 11 is 3 marks)**

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10.

Here is the number of goals a hockey team scored in each of 10 matches.

3    4    3    2    5    3    5    6    2    4

Find

(i) the median

(ii) the range

(iii) the mean

.....  
.....  
.....  
**(Total for Question 12 is 6 marks)**

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11.

(a) Work out  $2 \times (8 - 3)$

.....  
(1)

(b) Work out  $3^2 + 4 \times 5$

.....  
(2)

(c) Find the value of  $5^3$

.....  
(1)

(d) Find the square root of 16

.....  
(1)

**(Total for Question 16 is 5 marks)**

12.

A ticket for a seat at a school play costs £2.95

There are 21 rows of seats.

There are 39 seats in each row.

The school will sell all the tickets.

Work out an estimate for the total money the school will get.

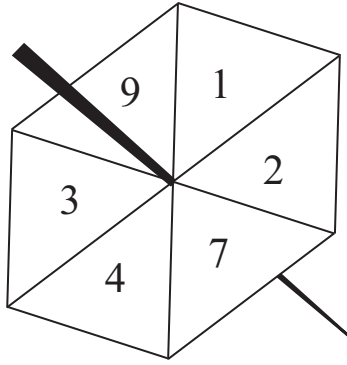
£.....

**(Total for Question 17 is 3 marks)**



13.

Here is a fair 6-sided spinner.



Jake is going to spin the spinner once.

(a) Write down the probability that the spinner will land

(i) on 4

.....

(ii) on a number greater than 10

.....

(2)

Liz is going to spin the spinner 120 times.

(b) Work out an estimate for the number of times the spinner will land on 7

.....

(2)

**(Total for Question 18 is 4 marks)**



14.

Mr Mason asks 240 Year 11 students what they want to do next year.

15% of the students want to go to college.

$\frac{3}{4}$  of the students want to stay at school.

The rest of the students do not know.

Work out the number of students who do not know.

.....  
**(Total for Question 27 is 4 marks)**

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15.

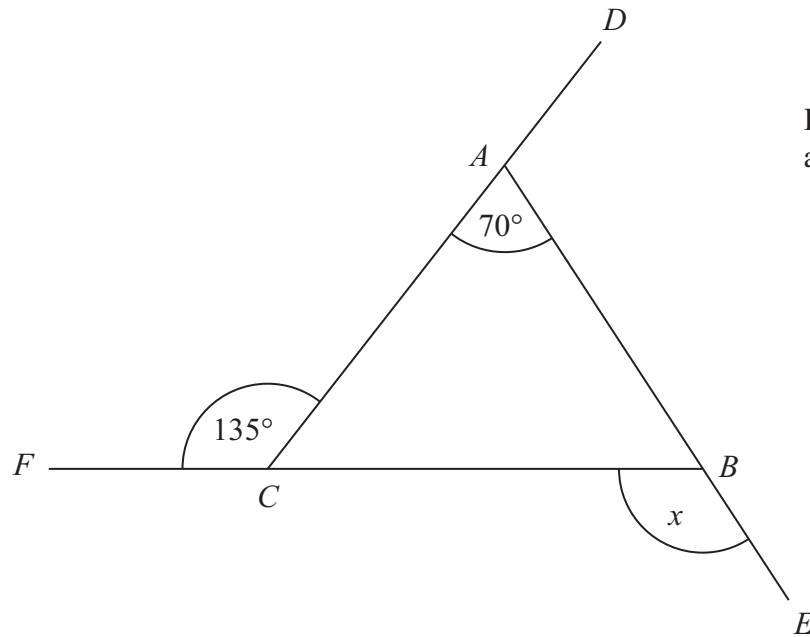


Diagram **NOT**  
accurately drawn

$DAC$ ,  $FCB$  and  $ABE$  are straight lines.

Work out the size of the angle marked  $x$ .  
You must give reasons for your answer.

(Total for Question 20 is 5 marks)



16.

The table shows the prices of drinks at Ed's Cafe.

Ed's Cafe			
	Small	Regular	Large
<b>Black coffee</b>	£1.40	£1.80	£2.20
<b>Cappuccino</b>	£1.60	£2.10	£2.60
<b>Latte</b>	£1.60	£2.10	£2.60
<b>Tea</b>	£1.20	£1.50	£1.80
<b>Cola</b>	£1.50	£2.00	£2.40

Helen buys

2 small black coffees

1 regular cappuccino

1 large cola

Helen pays with a £10 note.

(a) Work out how much change Helen should get.

£.....  
(3)

Ed reduces all the prices by 15%.

(b) Work out the reduced price of a large latte.

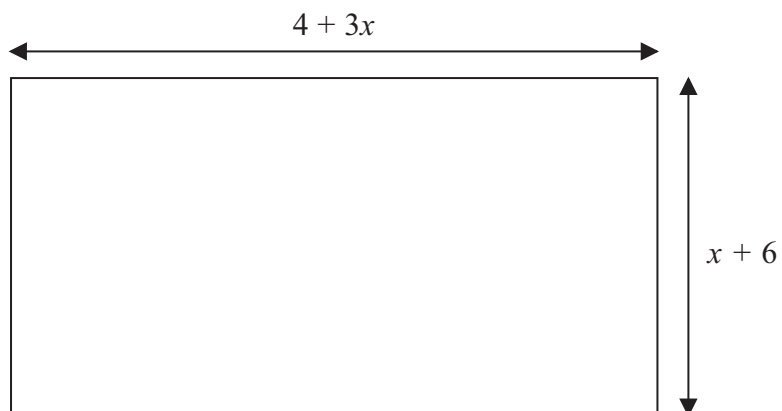
£.....  
(3)

(Total for Question 21 is 6 marks)



17.

The diagram shows a garden in the shape of a rectangle.



All measurements are in metres.

The perimeter of the garden is 32 metres.

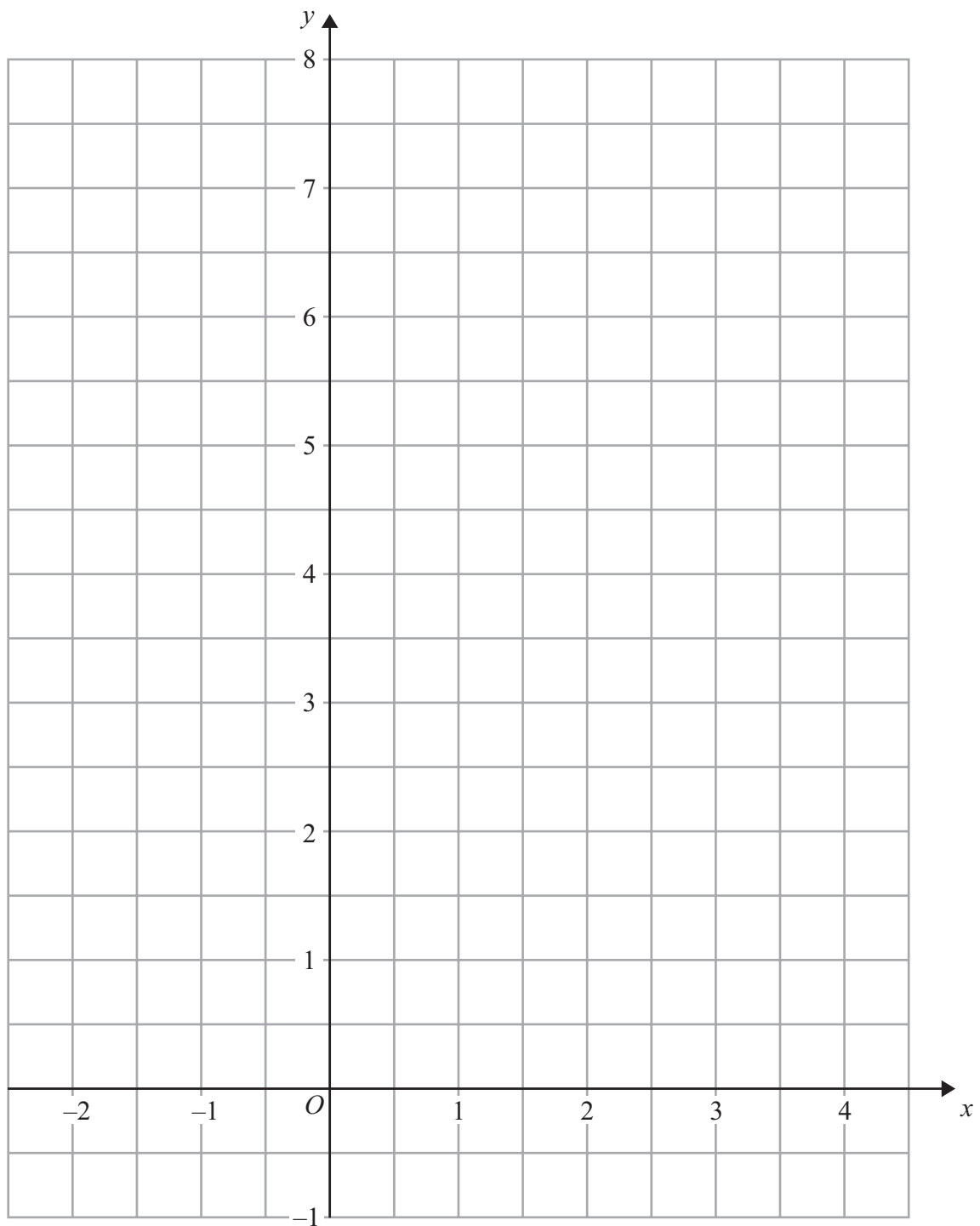
Work out the value of  $x$

.....  
(Total for Question 28 is 4 marks)



18.

On the grid, draw the graph of  $y = \frac{1}{2}x + 5$  for values of  $x$  from  $-2$  to  $4$



(Total for Question 29 is 3 marks)

