

17 In a box,

number of red buttons : number of blue buttons = 5 : 3

number of blue buttons : number of green buttons = 1 : 2

There are 48 green buttons in the box.

Work out the number of red buttons in the box.

.....  
(Total for Question 17 is 4 marks)

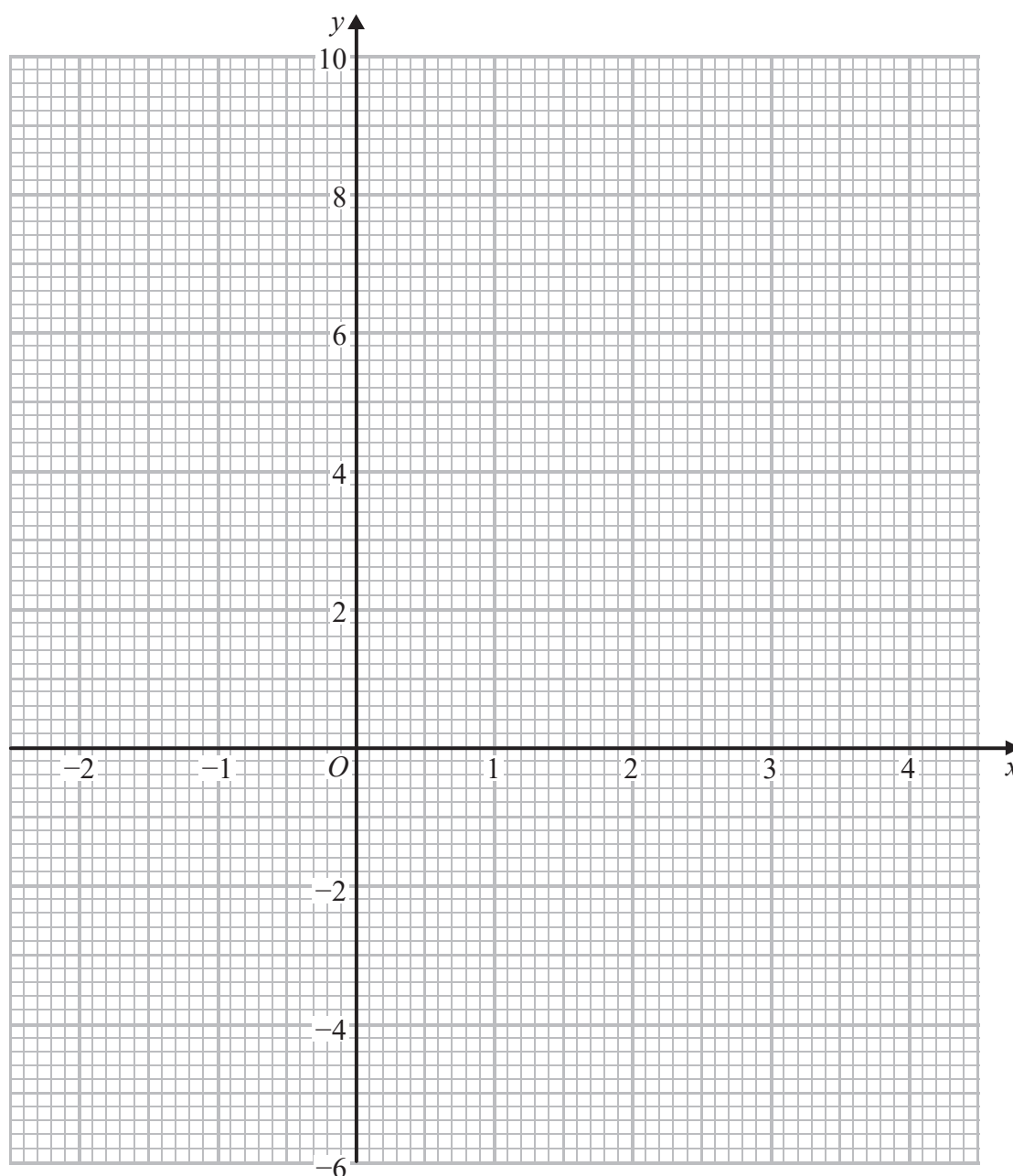


18 (a) Complete the table of values for  $y = x^2 - 3x - 1$

$x$	-2	-1	0	1	2	3	4
$y$			-1		-3		3

(2)

(b) On the grid, draw the graph of  $y = x^2 - 3x - 1$  for all values of  $x$  from -2 to 4



(2)

(Total for Question 18 is 4 marks)



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19 Becky has a biased 6-sided dice.

The table gives information about the probability that, when the dice is thrown, it will land on each number.

<b>Number</b>	1	2	3	4	5	6
<b>Probability</b>	$2x$	0.18	$2x$	$3x$	0.26	$x$

Becky is going to throw the dice 200 times.

Work out an estimate for the number of times that the dice will land on an even number.

.....  
(Total for Question 19 is 4 marks)



20 The diagram shows a solid cuboid made from wood.

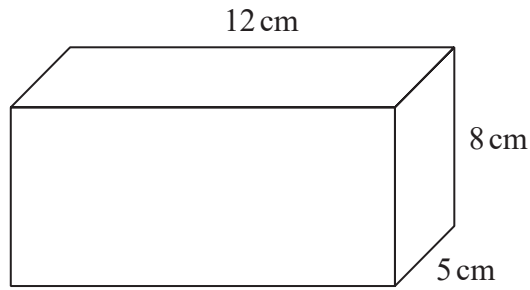


Diagram **NOT** accurately drawn

The wood has density  $0.7 \text{ g/cm}^3$

Work out the mass of the cuboid.

..... grams

**(Total for Question 20 is 3 marks)**

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21 (a) Write  $5.7 \times 10^6$  as an ordinary number.

.....  
(1)

(b) Write 0.004 in standard form.

.....  
(1)

(c) Work out  $\frac{2 \times 10^4 + 3 \times 10^5}{6.4 \times 10^{-2}}$

.....  
(2)

**(Total for Question 21 is 4 marks)**

22 On 1st January 2016 Li bought a boat for \$170 000  
The value of the boat depreciates by 8% per year.

Work out the value of the boat on 1st January 2019  
Give your answer correct to the nearest dollar.

\$ .....

**(Total for Question 22 is 3 marks)**



23 The diagram shows a shape made from a right-angled triangle and a semicircle.

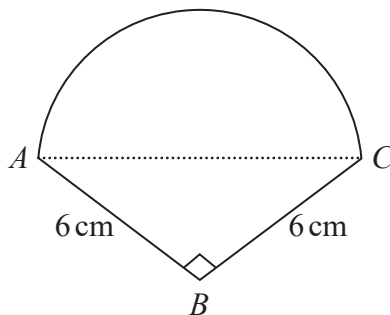


Diagram **NOT** accurately drawn

$AC$  is the diameter of the semicircle.

$BA = BC = 6$  cm

Angle  $ABC = 90^\circ$

Work out the area of the shape.

Give your answer correct to 1 decimal place.

..... cm<sup>2</sup>

(Total for Question 23 is 5 marks)

TOTAL FOR PAPER IS 100 MARKS

