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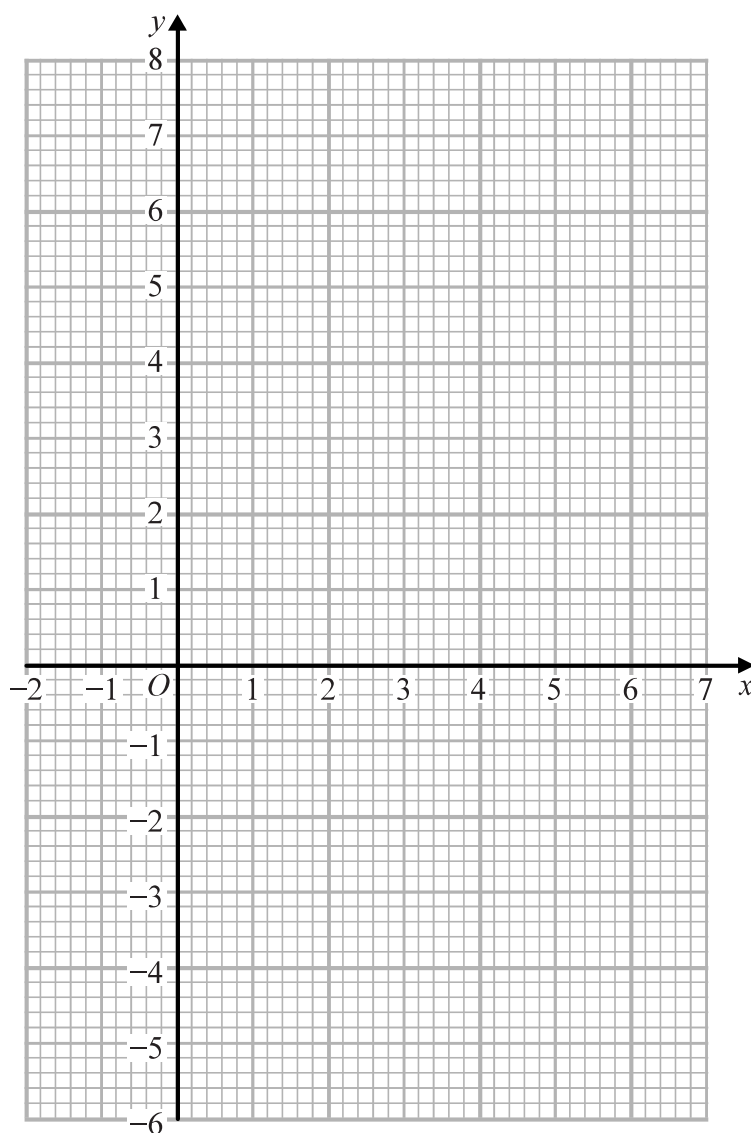
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19 (a) Complete the table of values for  $y = 1 + 5x - x^2$

$x$	-1	0	1	2	3	4	5	6
$y$		1		7	7		1	

(2)

(b) On the grid, draw the graph of  $y = 1 + 5x - x^2$  for values of  $x$  from -1 to 6



(2)

(Total for Question 19 is 4 marks)



20  $ABC$  and  $DEF$  are similar triangles.

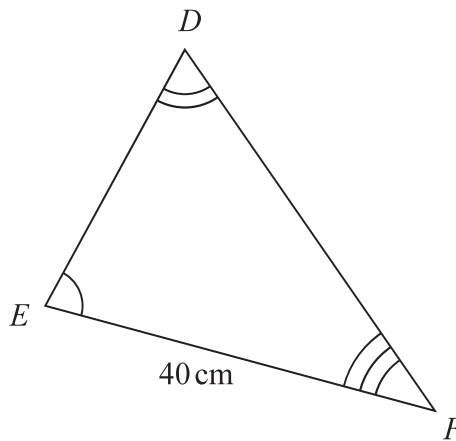
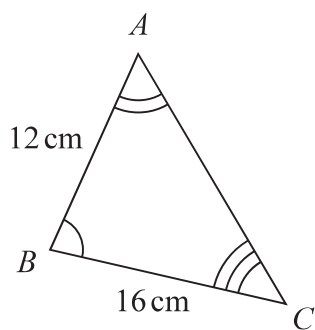


Diagram **NOT** accurately drawn

(a) Work out the length of  $DE$ .

..... cm  
(2)

The area of triangle  $DEF$  is  $525\text{ cm}^2$

(b) Find the area of triangle  $DEF$  in  $\text{m}^2$

.....  $\text{m}^2$   
(2)

(Total for Question 20 is 4 marks)

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- 21 There are some ice lollies in a freezer.

The flavour of each ice lolly is banana or strawberry or mint or chocolate.

Julius takes at random an ice lolly from the freezer.

The table shows the probabilities that the flavour of the ice lolly that Julius takes is banana or strawberry or chocolate.

<b>Flavour</b>	banana	strawberry	mint	chocolate
<b>Probability</b>	0.35	0.32		0.12

Work out the probability that the flavour of the ice lolly that Julius takes is either strawberry or mint.

.....  
(Total for Question 21 is 3 marks)

- 22 A football team played 55 games.  
Each game was won, drawn or lost.

number of games won : number of games drawn : number of games lost = 6 : 3 : 2

Work out how many more games the team won than the team lost.

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



23

$$A = 3^2 \times 5^4 \times 7 \qquad B = 3^4 \times 5^3 \times 7 \times 11$$

(a) Find the highest common factor (HCF) of  $A$  and  $B$ .

.....  
(2)

(b) Find the lowest common multiple (LCM) of  $A$  and  $B$ .

.....  
(2)

(Total for Question 23 is 4 marks)

24 (a) Write 840 000 in standard form.

.....  
(1)

(b) Work out  $(6 \times 10^7) \div (8 \times 10^{-2})$   
Give your answer in standard form.

.....  
(2)

(Total for Question 24 is 3 marks)



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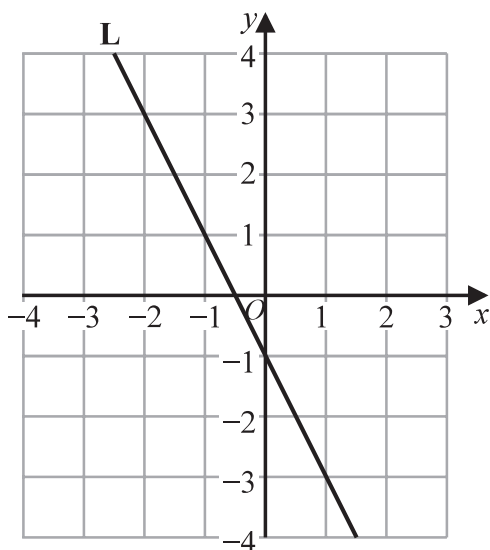
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25 Henri buys a yacht for 150 000 euros.  
The yacht depreciates in value by 18% each year.  
Work out the value of the yacht at the end of 3 years.  
Give your answer correct to the nearest euro.

..... euros

(Total for Question 25 is 3 marks)

26 Line L is drawn on the grid.



Find an equation for L.

.....

(Total for Question 26 is 3 marks)



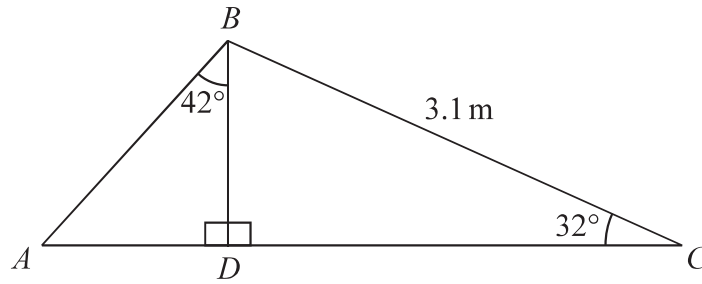


Diagram **NOT**  
accurately drawn

Calculate the length of  $AB$ .  
Show your working clearly.  
Give your answer correct to 3 significant figures.

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..... m

(Total for Question 27 is 5 marks)

**TOTAL FOR PAPER IS 100 MARKS**

