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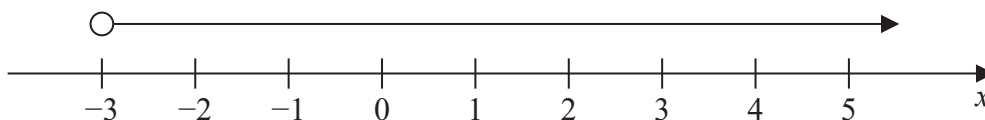
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Answer ALL TWENTY FOUR questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

1 (a)



Write down the inequality shown on the number line.

.....
(1)

(b) Solve the inequality $4y - 13 \leq y + 8$

.....
(2)

(Total for Question 1 is 3 marks)

2 Show that $5\frac{2}{3} - 2\frac{3}{4} = 2\frac{11}{12}$

(Total for Question 2 is 3 marks)

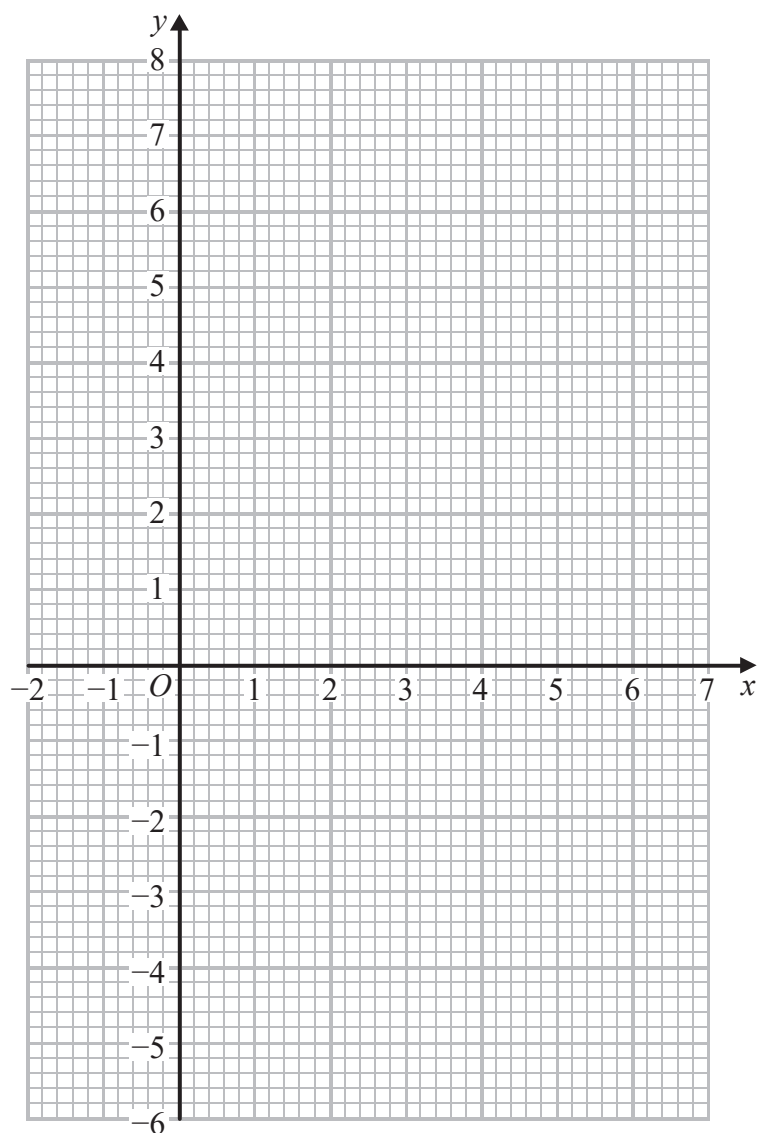


3 (a) Complete the table of values for $y = 1 + 5x - x^2$

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 3 is 4 marks)



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4 ABC and DEF are similar triangles.

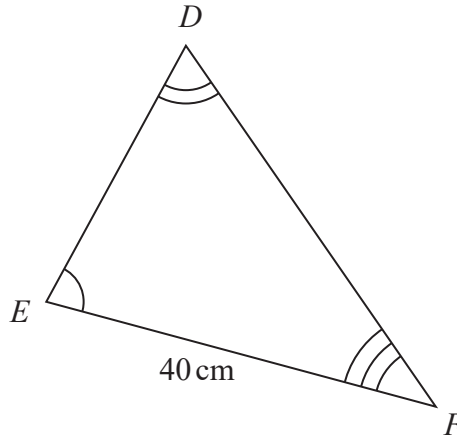
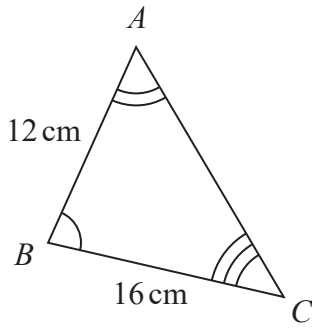


Diagram **NOT** accurately drawn

(a) Work out the length of DE .

..... cm
(2)

The area of triangle DEF is 525 cm^2

(b) Find the area of triangle DEF in m^2

..... m^2
(2)

(Total for Question 4 is 4 marks)

5 Factorise $x^2 - 5x - 36$

.....
(Total for Question 5 is 2 marks)



- 6 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.

Flavour	banana	strawberry	mint	chocolate
Probability	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 6 is 3 marks)

- 7 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 7 is 3 marks)



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8

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

(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 8 is 4 marks)

9 (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 9 is 3 marks)



10 Henri buys a yacht for 150 000 euros.

The yacht depreciates in value by 18% each year.

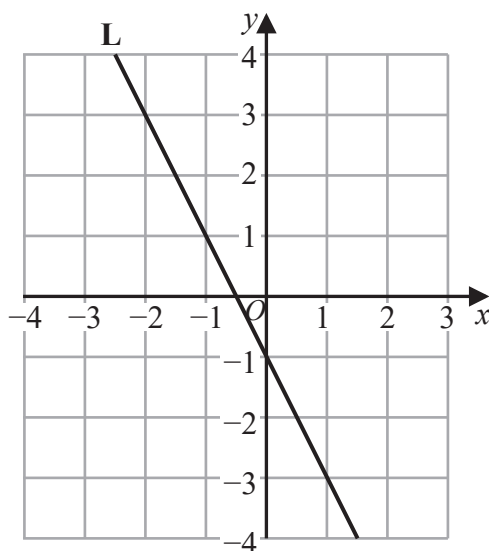
Work out the value of the yacht at the end of 3 years.

Give your answer correct to the nearest euro.

..... euros

(Total for Question 10 is 3 marks)

11 Line L is drawn on the grid.



Find an equation for L.

.....

(Total for Question 11 is 3 marks)



12

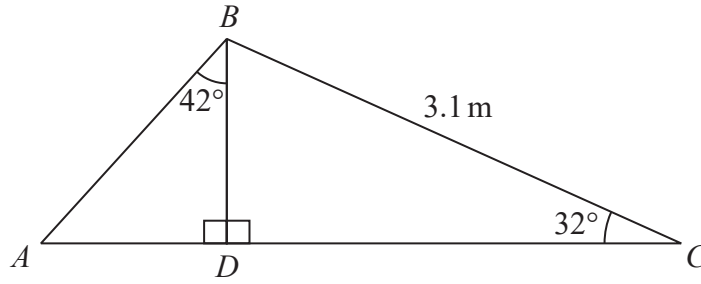


Diagram **NOT** accurately drawn

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

..... m

(Total for Question 12 is 5 marks)

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