

GCSE Grade 4

Maths

Booklet 2

Paper 3H
Calculator

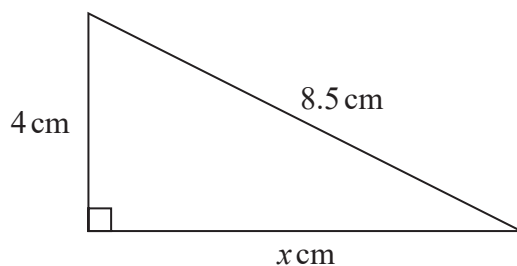
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Answer ALL questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

- 1 Here is a right-angled triangle.



Work out the value of x .

$x =$

(Total for Question 1 is 2 marks)



2 $T = 4m^2 - 11$

(a) Work out the value of T when $m = -3$

$$T = \dots\dots\dots (2)$$

(b) Make p the subject of the formula $d = 3p + 4$

$$\dots\dots\dots (2)$$

(Total for Question 2 is 4 marks)



- 3 Rick, Selma and Tony are playing a game with counters.

Rick has some counters.

Selma has twice as many counters as Rick.

Tony has 6 counters less than Selma.

In total they have 54 counters.

the number of counters Rick has : the number of counters Tony has = $1 : p$

Work out the value of p .

$p = \dots\dots\dots$

(Total for Question 3 is 5 marks)



- 4 Jo is going to buy 15 rolls of wallpaper.

Here is some information about the cost of rolls of wallpaper from each of two shops.

Chic Decor

3 rolls for £36

Style Papers

Pack of 5 rolls
normal price £70

12% off the normal price

Jo wants to buy the 15 rolls of wallpaper as cheaply as possible.

Should Jo buy the wallpaper from Chic Decor or from Style Papers?

You must show how you get your answer.

(Total for Question 4 is 4 marks)



- 5 (a) Write 7357 correct to 3 significant figures.

.....
(1)

(b) Work out $\frac{\sqrt{17 + 4^2}}{7.3^2}$

Write down all the figures on your calculator display.

.....
(2)

(Total for Question 5 is 3 marks)

- 6 Last year Jo paid £245 for her car insurance.
This year she has to pay £883 for her car insurance.

Work out the percentage increase in the cost of her car insurance.

.....%

(Total for Question 6 is 3 marks)

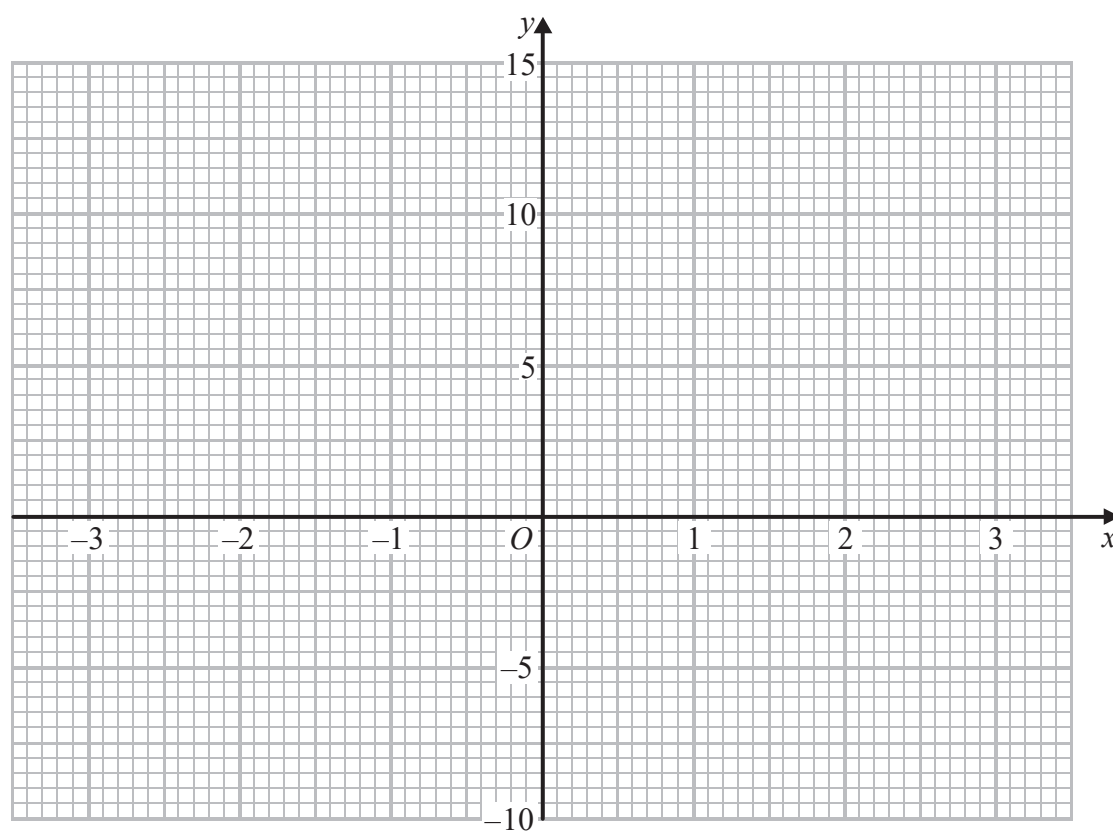


- 7 (a) Complete this table of values for $y = x^2 + x - 4$

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

(2)

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



(2)

- (c) Use the graph to estimate a solution to $x^2 + x - 4 = 0$

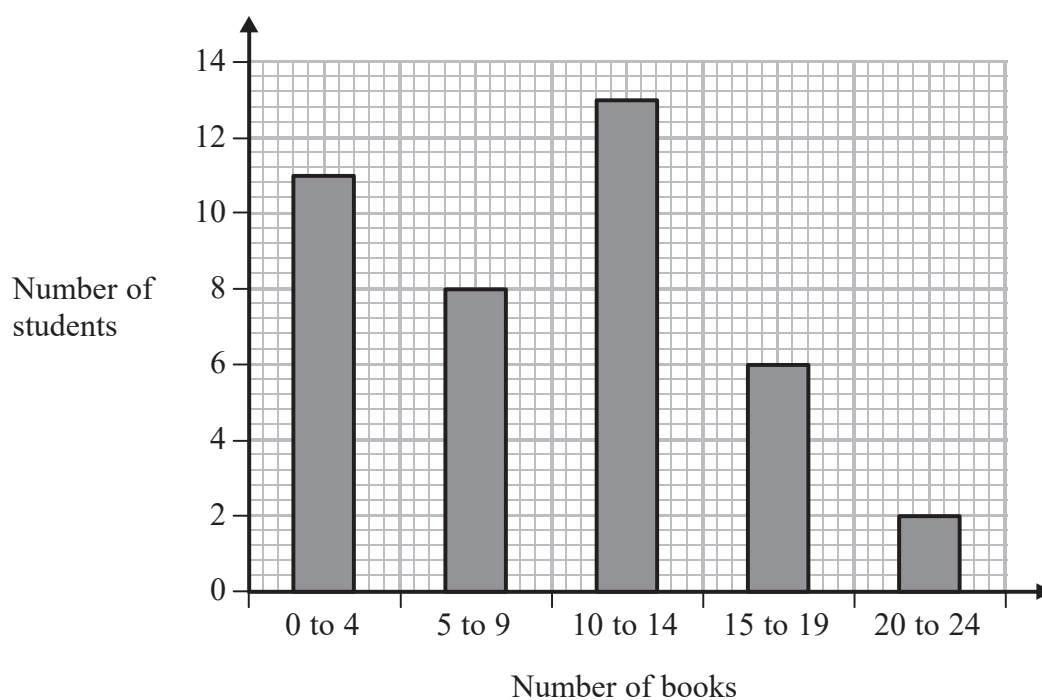
(1)

(Total for Question 7 is 5 marks)



- 8 Fran asks each of 40 students how many books they bought last year.

The chart below shows information about the number of books bought by each of the 40 students.



- (a) Work out the percentage of these students who bought 20 or more books.

..... %
(2)



DO NOT WRITE IN THIS AREA

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- (b) Show that an estimate for the mean number of books bought is 9.5
You must show all your working.

(4)

(Total for Question 8 is 6 marks)



P 5 5 5 9 8 A 0 5 2 0