

Centre Number						Candidate Number				
Surname										
Other Names										
Candidate Signature										

For Examiner's Use	
Examiner's Initials	
Pages	Mark
2 - 3	
4 - 5	
6 - 7	
8 - 9	
10 - 11	
12 - 13	
TOTAL	

In the style of



General Certificate of Secondary Education
Foundation Tier

Mathematics

43602F

Past Paper Type Questions by Topic

Graphs

F

For this paper you must have:

- a calculator
- mathematical instruments.



Time allowed

- 1 hour

Instructions

- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this book.

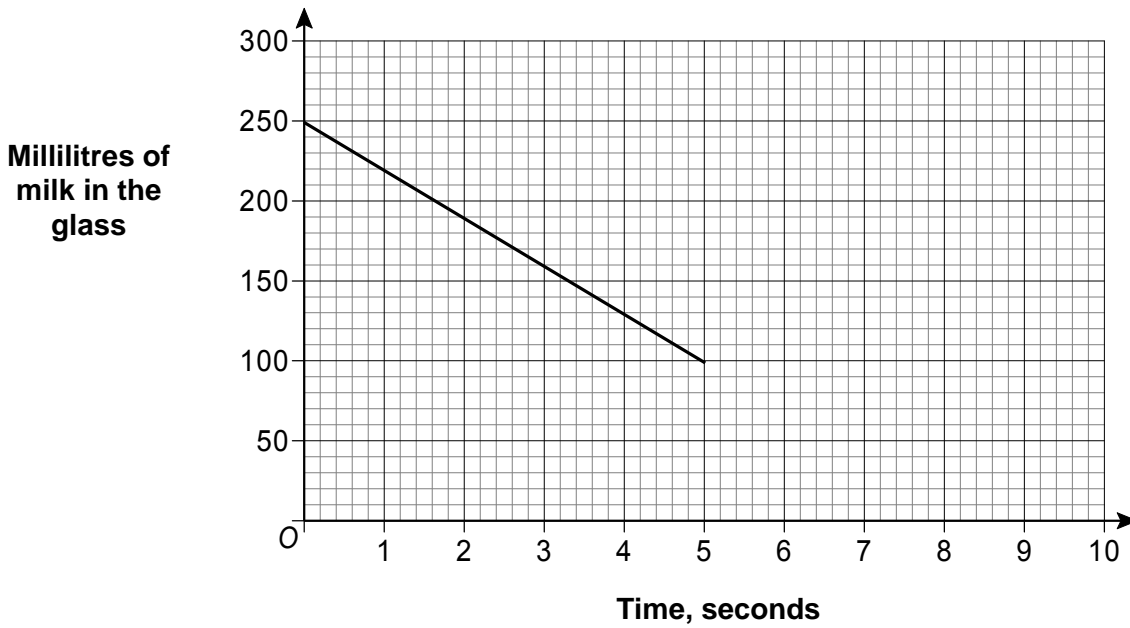
Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is.
- The quality of your written communication is specifically assessed in some questions . These questions are indicated with an asterisk (*)
- You may ask for more answer paper and graph paper. These must be tagged securely to this answer booklet.

Advice

- In all calculations, show clearly how you work out your answer.

- 1 Georgina has 250 millilitres of milk in a glass.
She takes five seconds to drink some of the milk.
The graph shows this information.



- 1 (a) How many millilitres of milk did Georgina drink in five seconds?

.....

Answer

(1 mark)

- 1 (b) Georgina does not drink any milk for the next two seconds.
She then drinks all the remaining milk in three seconds.
Show this information on the graph.

(2 marks)



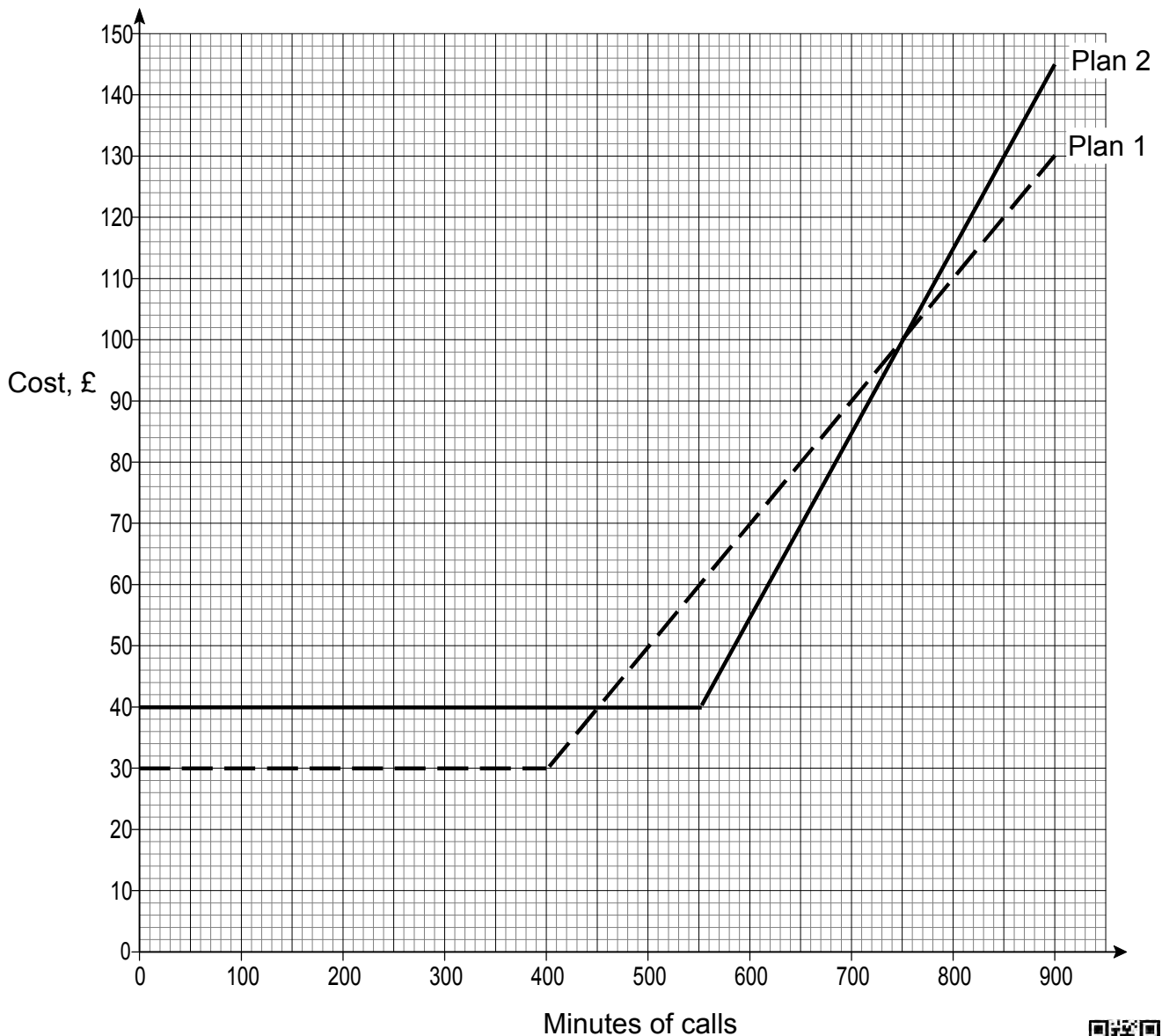
2

Here is a mobile phone tariff.

Plan 1	
Monthly charge	£30
Free minutes of calls per month	400
Extra minutes charged at	20 pence per minute

Plan 2 is a different mobile phone tariff.

These graphs show the cost, in £, for each of the plans.



2 (a) Complete the mobile phone tariff for Plan 2.

.....
.....
.....
.....
.....

Plan 2	
Monthly charge	£40
Free minutes of calls per month	
Extra minutes charged at pence per minute

(4 marks)

2 (b) Louis is deciding whether to use Plan 1 or Plan 2.

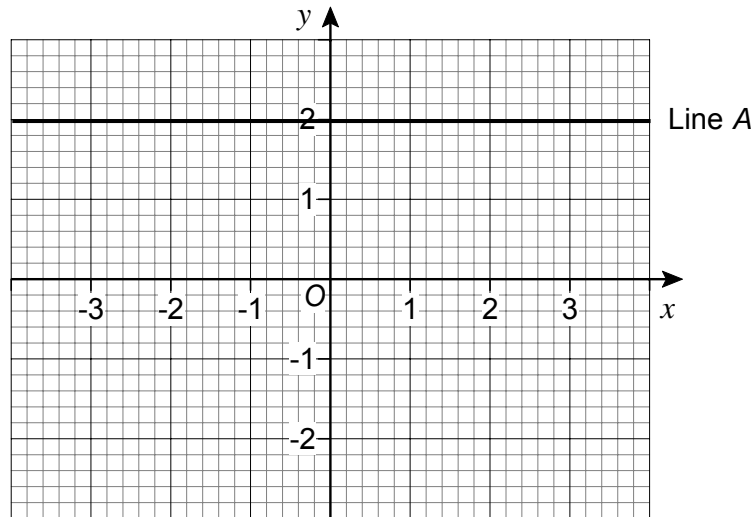
Work out the number of minutes of calls for which Plan 2 is cheaper.

.....
.....

(2 marks)



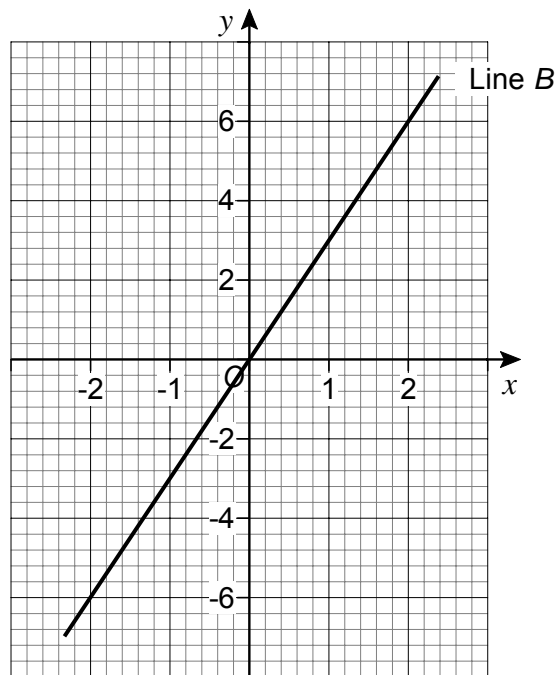
3 (a) Line A is drawn on the grid.



What is the equation of Line A?

Answer (1 mark)

3 (b) Line B is drawn on the grid.

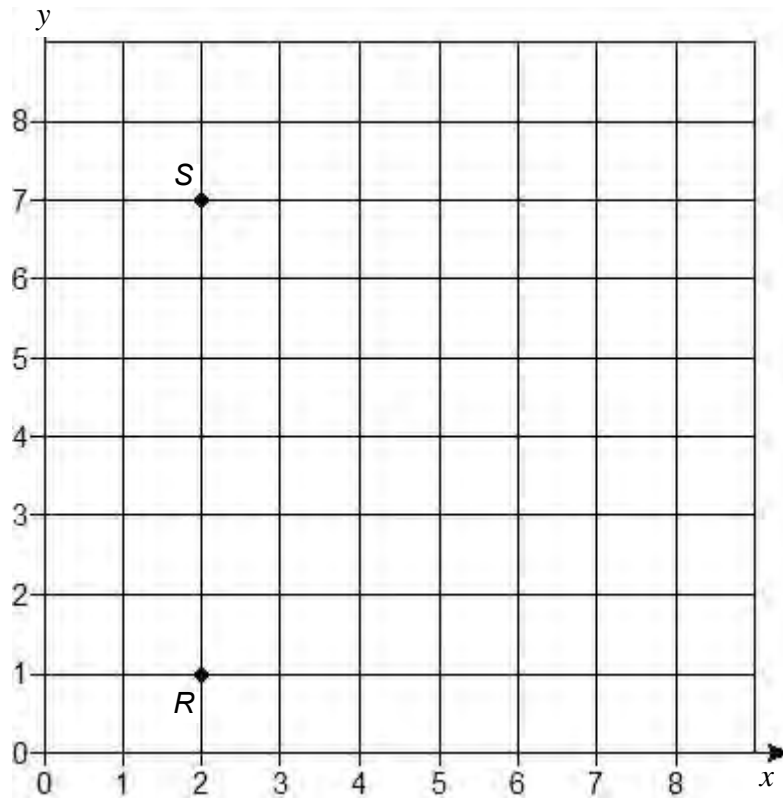


What is the gradient of Line B?

Answer(1 mark)



4 Points R and S are shown on the grid below.



4 (a) Write down the coordinates of R .

Answer (.....,) (1 mark)

4 (b) Plot the point $M(4, 2)$ on the grid.

(1 mark)

4 (c) M is the midpoint of the line segment RT .

4 (c) (i) Mark the position of T on the grid.

(1 mark)

4 (c) (ii) Write down the coordinates of T .

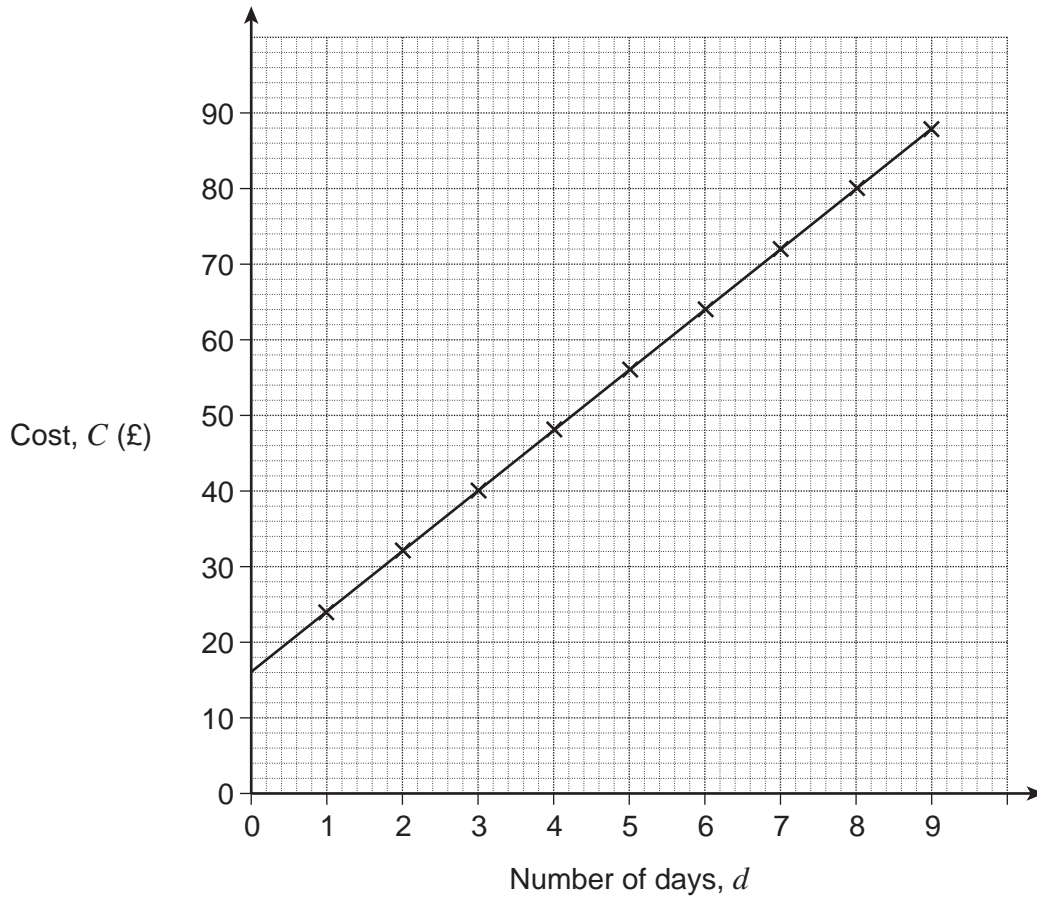
Answer (.....,) (1 mark)

4 (d) The points R , S and U are on a straight line. The point U is twice as far from R as point S . Write down the coordinates of U .

Answer (.....,) (2 marks)



- 5 The graph shows the cost, C (£), of hiring a concrete mixer from Redwood Plant Hire for a number of days, d .



- 5 (a) Circle the correct formula for the cost, C .

$$C = 24d$$

$$C = 8d + 24$$

$$C = 16d + 8$$

$$C = 8d + 16$$

.....

.....

(1 mark)



5 (b) The cost of hiring a concrete mixer from Greens Plant Hire is given by the formula

$$C = 9d + 11$$

Helen thinks that Greens Plant Hire is always cheaper.

Is this true?

Tick a box.

Yes

No

Give reasons for your answer.

.....

.....

.....

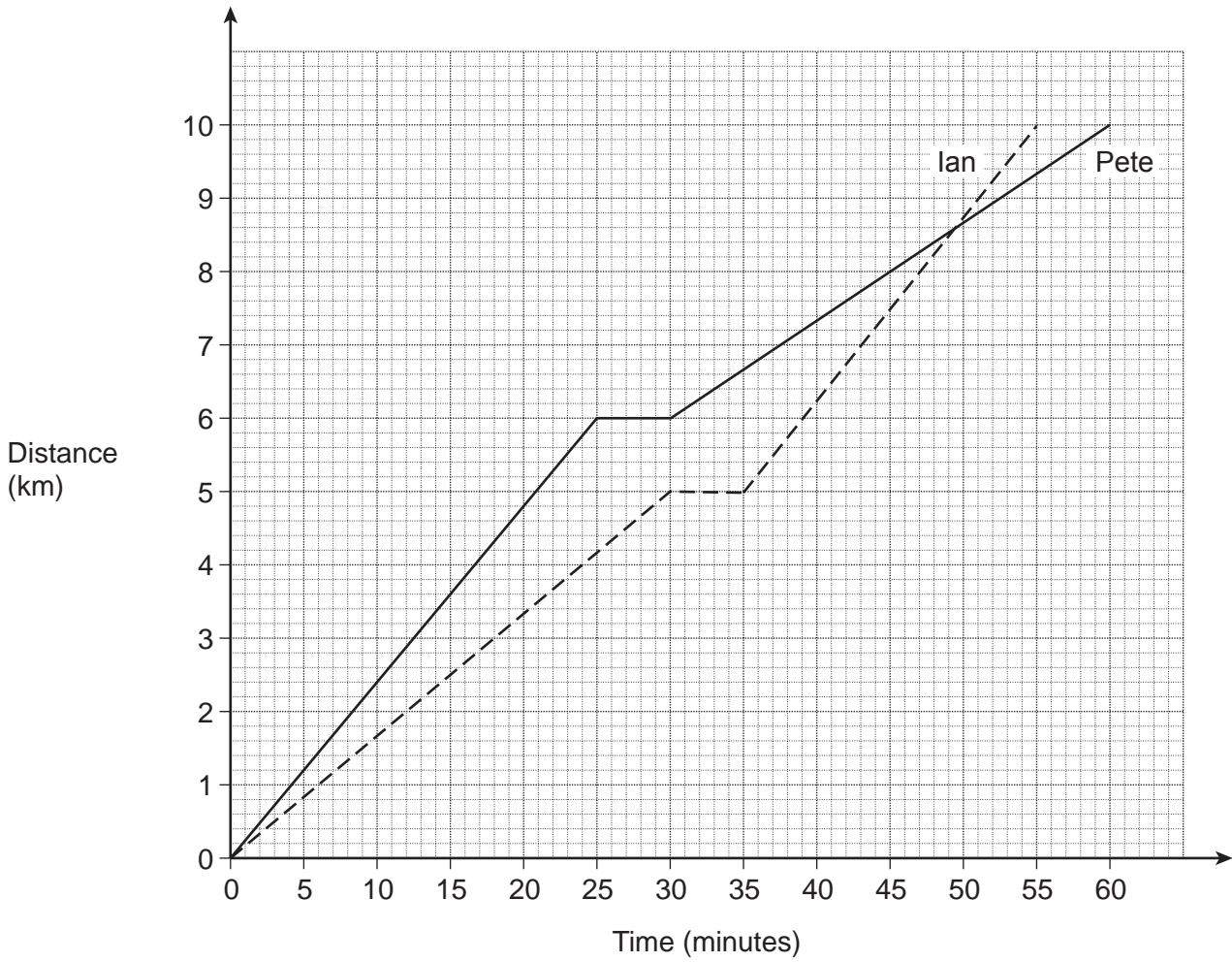
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(3 marks)



6 The graph shows two training runs by Ian and Pete.



6 (a) After how many minutes does Ian overtake Pete?

Answer minutes (1 mark)

6 (b) How far ahead is Pete when Ian starts again after his rest?

.....

Answer km (2 marks)



There are no questions printed on this page

**DO NOT WRITE ON THIS PAGE
ANSWER IN THE SPACES PROVIDED**

