Edexcel Mock Test Papers-Paper2 Test3

Paper **2F**

Time 1 hour 30 minutes

Mathematics
PAPER 2 (Calculator)
Foundation Tier

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser, calculator, Formulae Sheet (enclosed). Tracing paper may be used.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions. Answer the questions in the spaces provided – *there may be more space than you need*.
- You must **show all your working**.
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- **Calculators may be used**. If your calculator does not have a π button, take the value of π to be 3.142 unless the question instructs otherwise.

Information

- The total mark for this paper is 80
- The marks for **each** question are shown in brackets – *use this as a guide as to how much time to spend on each question*.

Advice

- Read each question carefully before you start to answer it. Try to answer every question.
- Check your answers if you have time at the end.

Turn over ▶

Prepare 4 GCSEs

Answer ALL questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

1 Write 45% as a fraction.

....

(Total for Question 1 is 1 mark)

2 Change 8 metres into centimetres.

.... centimetres

(Total for Question 2 is 1 mark)

3 Write the following numbers in order of size.
    Start with the smallest number.

2.07   0.27   2.20   0.12

....

(Total for Question 3 is 1 mark)

4 (a) Simplify $n + n + n$

....

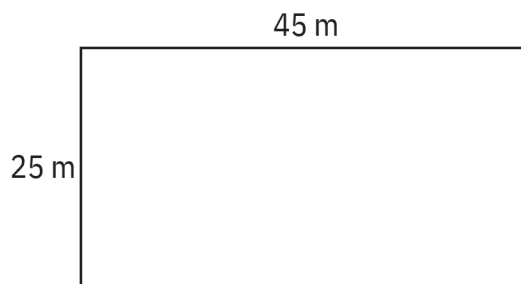(1)

(b) Simplify $24t \div 6$

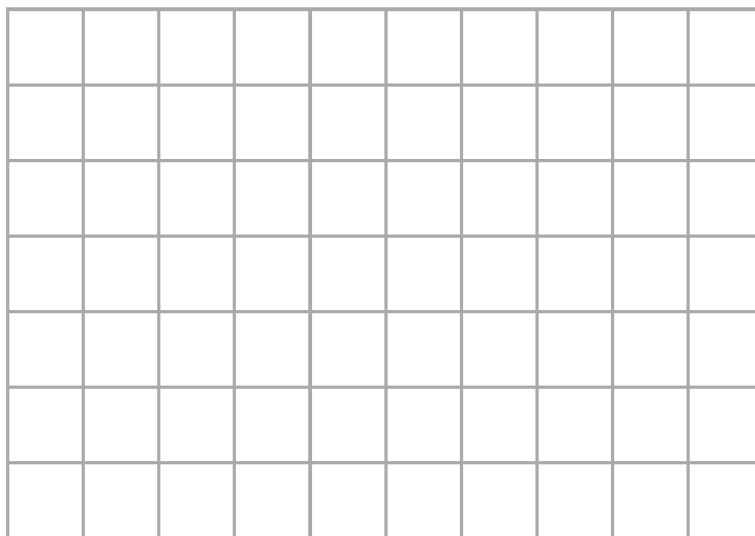...

(1)

(Total for Question 4 is 2 marks)

5 The diagram shows a rectangle.

45 m

25 m

On the centimetre grid below, draw an accurate scale drawing of this rectangle.
Use a scale of 1 cm to represent 5 m.

(Total for Question 5 is 2 marks)

6   Here is a list of whole numbers from 40 to 50

    40   41   42   43   44   45   46   47   48   49   50

    (a) From the list, write down a square number.

    ....

                                                                              (1)

    (b) From the list, write down multiples of 5

    ....

                                                                              (1)

                                          (Total for Question 6 is 2 marks)

7   A baker has three bags of flour, A, B and C.

    Bag A and bag C contain the same amount of flour.
    Bag B contains 850 g of flour.
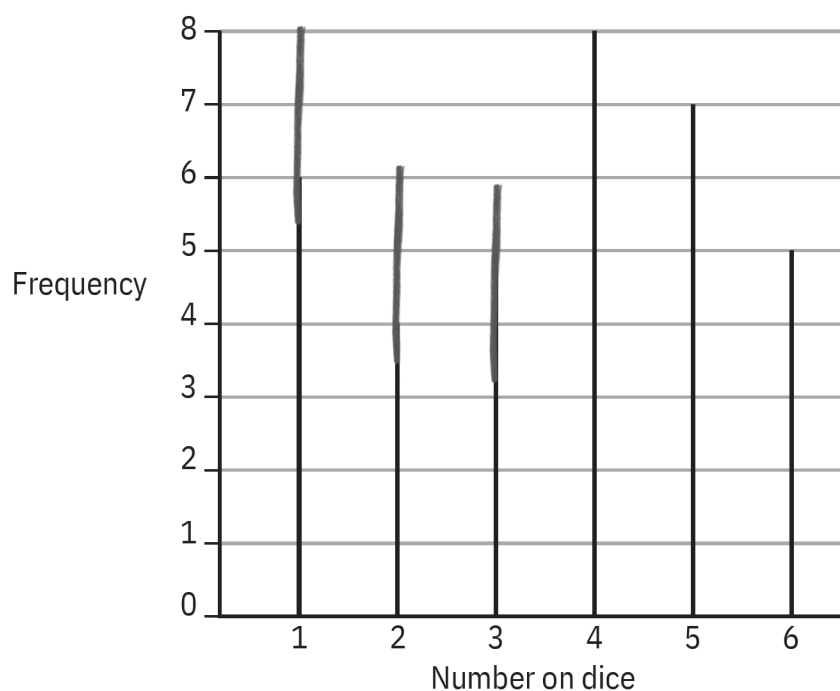   In the three bags, there is a total of 3600 g of flour.

    Work out the amount of flour in bag C.

    .... g

                                          (Total for Question 7 is 3 marks)

8 4 students throw a dice.
   They each throw the dice the same number of times.

   The diagram gives information about the number of times the dice lands on each number.

Frequency

Number on dice

Work out how many times each student throws the dice.

....

(Total for Question 8 is 3 marks)

9   Sam needs to work out the value of 4 + 2 × 5

He writes

$$4 + 2 = 6 \text{ and } 6 × 5 = 30, \text{ so } 4 + 2 × 5 = 30$$
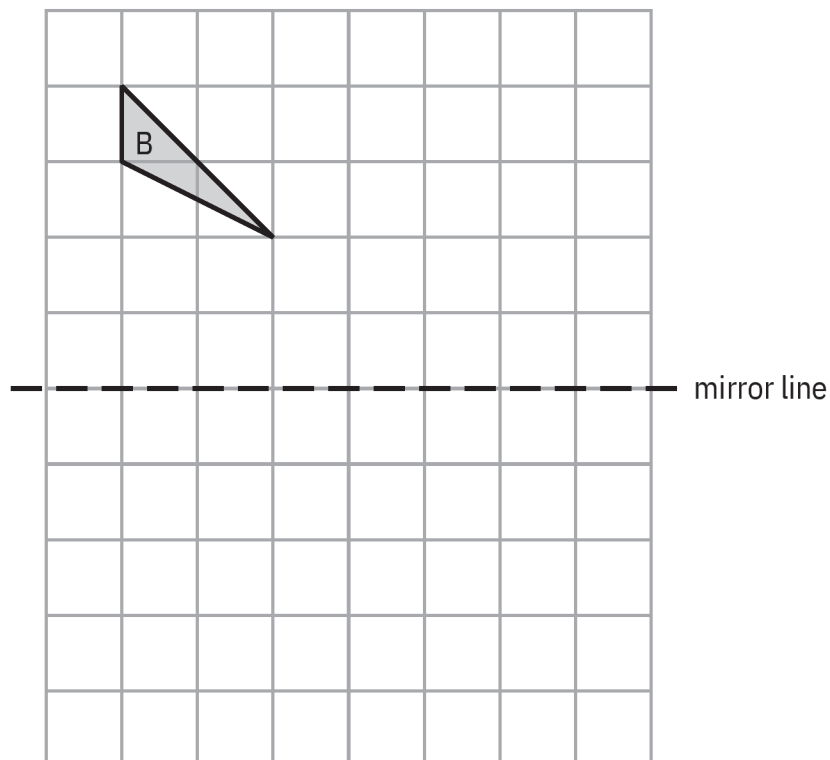
Sam is wrong.
Explain why.

....

....

....

(Total for Question 9 is 1 mark)

10   Write 24 as a fraction of 50

....

(Total for Question 10 is 1 mark)

11   Reflect shape B in the mirror line.

mirror line

(Total for Question 11 is 2 marks)

12 (a) Work out $\sqrt{\dfrac{25.64}{5.08}}$

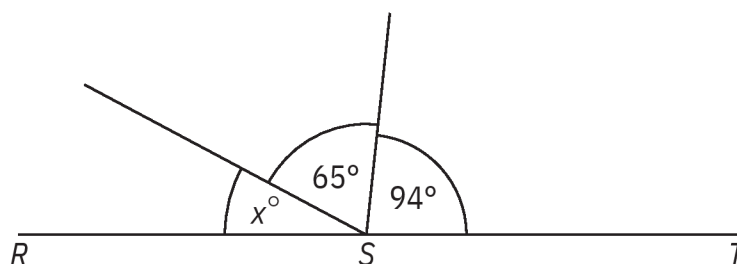Write down all the figures on your calculator display.

....

(2)

(b) Give your answer to part (a) correct to 2 decimal places.

....

(1)

(Total for Question 12 is 3 marks)

13

RST is a straight line.

(i) Work out the value of x .

....

(2)

(ii) Give a reason for your answer.

....

....

....

(1)

(Total for Question 13 is 3 marks)

14   Isabella wants to book a holiday.

The holiday will cost £1680
Isabella will pay a deposit of £120
She will then pay the rest of the cost in 8 equal monthly payments.
How much is each monthly payment?

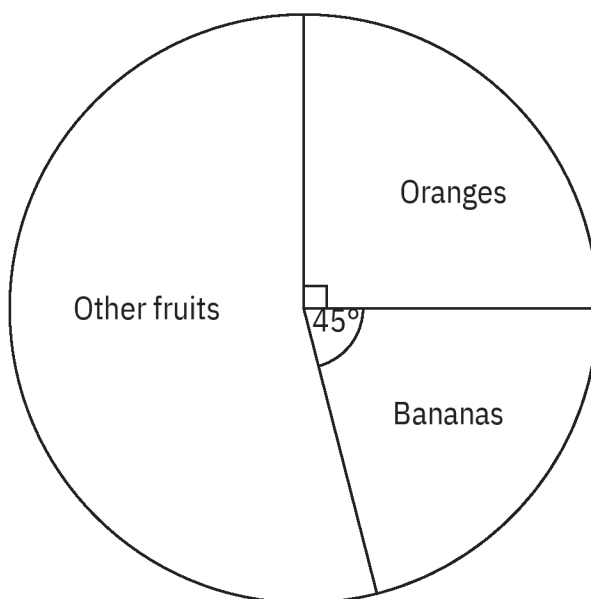£..

(3)

(Total for Question 14 is 3 marks)

15   Write the following fractions in order of size.
      Start with the smallest fraction.

$$\frac{4}{5} \qquad \frac{3}{2} \qquad \frac{3}{8} \qquad \frac{3}{5}$$

....

(Total for Question 15 is 2 marks)

Turn over ▶

16   The pie chart gives information about the types of fruits sold at a fruit market.

There are 150 oranges in the market.

(a) Work out the number of bananas in the market.

....

(3)

There are 60 apples in the market.

A fruit is picked at random from the market.

(b) Find the probability that this fruit is an apple.

....

(2)

(Total for Question 16 is 5 marks)

17 In a survey of 80 people, they were asked whether they prefer to communicate with their friends via

FaceTime or WhatsApp

48 of the people are women and the rest are men.
20 of the men prefer to communicate with their friends via FaceTime .
50% of the people prefer to communicate with their friends via WhatsApp.

Complete the frequency tree for this information.
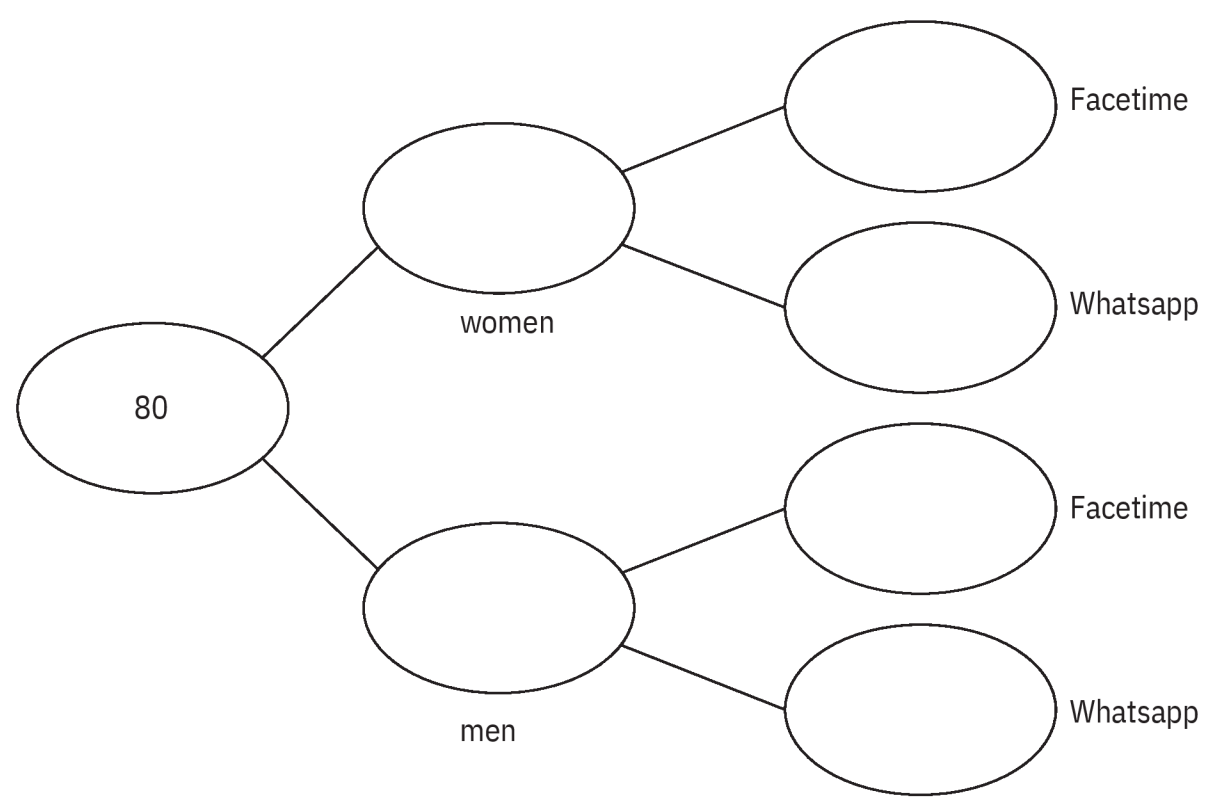
(Total for Question 17 is 5 marks)

18　The incomplete table gives some information about the lengths of the ropes in Milo's workshop.

Length of Rope (metres)	Number of Ropes
4	6
3	7
2.5	?
2	12
1	5

The total length of these ropes is 70 metres.

Work out the number of ropes of length 2.5 metres in Milo's workshop.

....

(Total for Question 18 is 3 marks)

Prepare 4 GCSEs

19 Milo, Bethany and Eeshu share £800 between them.

Milo gets $\frac{1}{5}$ of the £800

Bethany gets $\frac{1}{4}$ of the money that is left over.

Eeshu gets the rest of the money.

Eeshu says,
   "I would have got more money if we had shared the £800 equally between us."

Is Eeshu correct?

You must show how you get your answer.

(Total for Question 19 is 4 marks)

20 (a) Simplify $c^8 \div c^3$

....
(1)

(b) Simplify $(d^8)^4$

....
(1)

(Total for Question 20 is 2 marks)

21 The box below contains three mathematical symbols.

| = | < | > |

From the box, choose a symbol to make each of the following statements correct

....
(1)

(i) $\dfrac{7}{8}$ .... $\dfrac{5}{8}$

(ii) -7×-3 .... $-3 + 7$

(iii) $-5 + -3$ .... $-3 + 9$

(2)

(Total for Question 21 is 3 marks)

Prepare 4 GCSEs

22 (a) Find the Highest Common Factor (HCF) of 40 and 64

....

(2)

(b) Find the Lowest Common Multiple (LCM) of 40 and 80

....

(2)

(Total for Question 22 is 4 marks)

23 Joe drives his car on a journey.
    Here is the travel graph for the first 10 minutes of his journey.

Distance travelled (kilometres)

50 —
40 —
30 —
20 —
10 —
0 —

9 00   9 10   9 20   9 30   9 40   9 50

Time of day
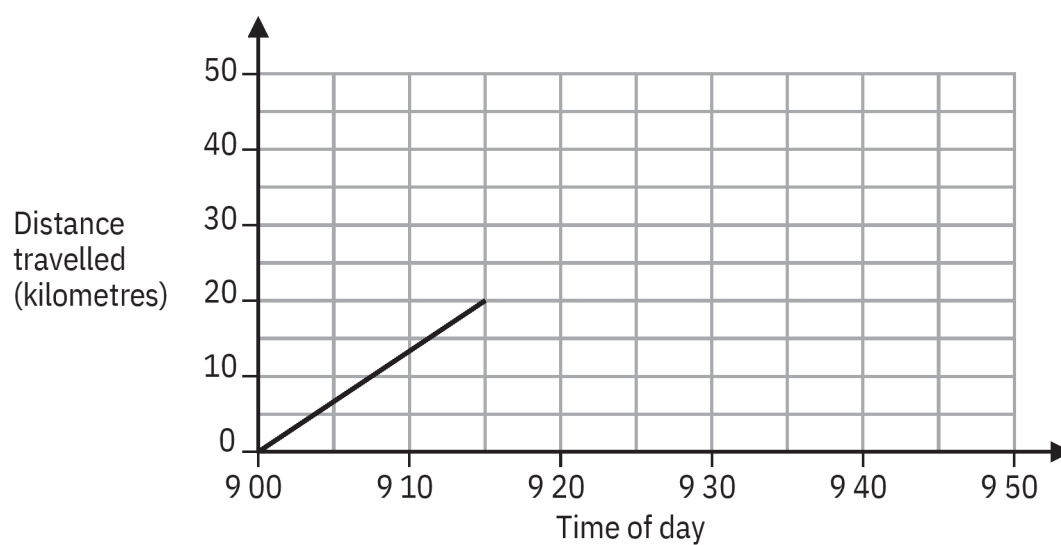
(a) Work out Joe's speed, in km/h, for the first 10 minutes of his journey.

.... km/h

(2)

At 9: 15 Joe stops for 5 minutes and then drives for 15 minutes at a speed of 60 km/h.

(b) On the grid, complete the travel graph for Joe's journey.
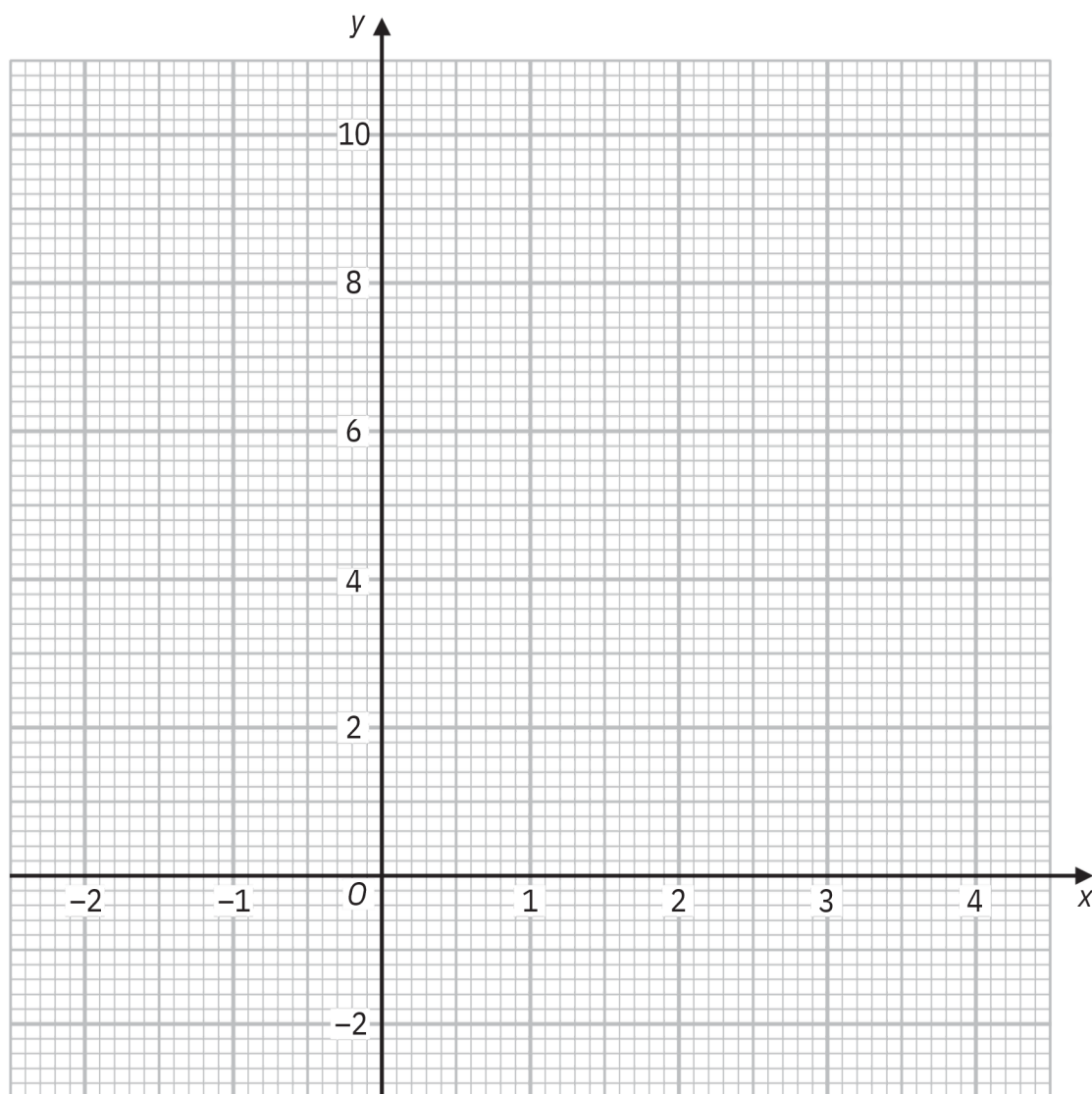
(3)

(Total for Question 23 is 5 marks)

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

x	−2	−1	0	1	2	3
y	5		1			

(2)

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

(2)

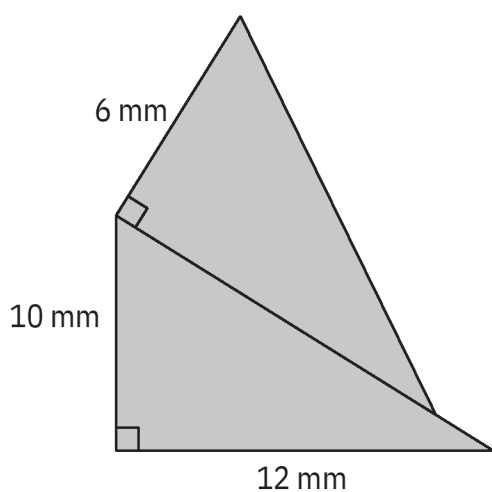(c) Use your graph to find estimates of the solutions of the equation $x^2 - x + 1 = 2$

....

(2)

(Total for Question 24 is 6 marks)

Turn over ▶

25   Here is a right-angled triangle.

10 mm

12 mm
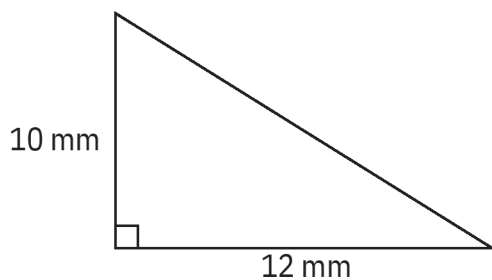
The shaded shape below is made from two of these triangles.

6 mm

10 mm

12 mm

Work out the perimeter of the shaded shape.
Give your answer correct to 3 significant figures.

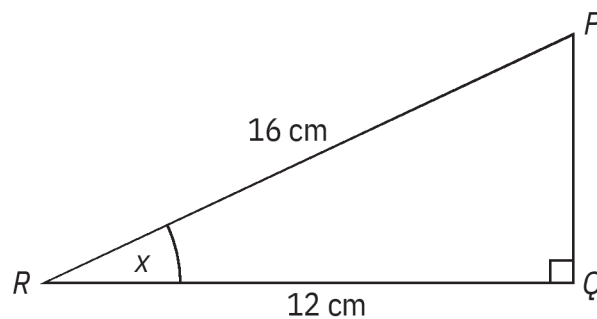... mm

(Total for Question 25 is 4 marks)

26 *ABC* is a right-angled triangle.
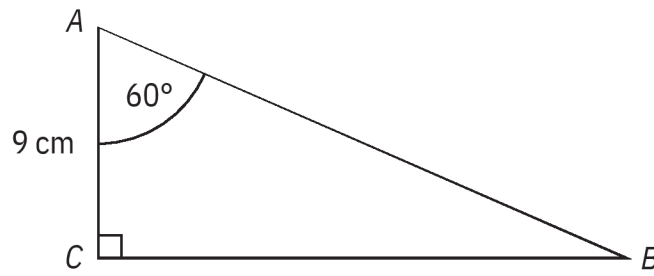
(a) Work out the length of *BC*.
    Give your answer correct to 1 decimal place.

.... cm

(2)

PQR is a right-angled triangle.

(b) Work out the size of the angle marked *x*.
    Give your answer correct to 1 decimal place.

....°

(2)

(Total for Question 26 is 4 marks)

Turn over ▶

27   Solve $x^2 - 10x - 25 = 0$

....

(Total for Question 27 is 3 marks)

28   In a sale, the normal price of a car is reduced by 20%.
The sale price of the car is £16,000.

Work out the normal price of the car.

£...

(Total for Question 28 is 2 marks)

TOTAL FOR PAPER IS 80 MARKS