

Please check the examination details below before entering your candidate information

Candidate surname					Other names				
Centre Number					Candidate Number				
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Pearson Edexcel Level 1/Level 2 GCSE (9–1)

Time 1 hour 30 minutes

Paper reference **1MA1/2F**

Mathematics

PAPER 2 (Calculator)

Foundation Tier

Shadow Set 1

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser, calculator. Tracing paper may be used.	Total Marks
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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 ►

Answer ALL questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

1 Write 67% as a fraction.

.....
(Total for Question 1 is 1 mark)

2 Change 5 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.

2.06 0.26 2.60 0.62

.....
(Total for Question 3 is 1 mark)

4 (a) Simplify $y + y + y$

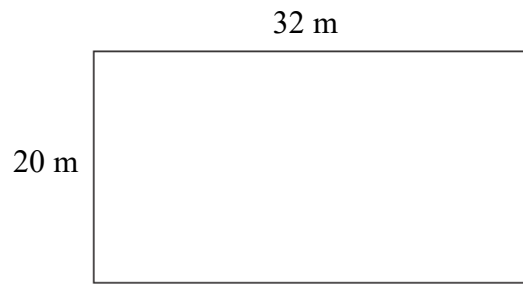
.....
(1)

(b) Simplify $24m \div 6$

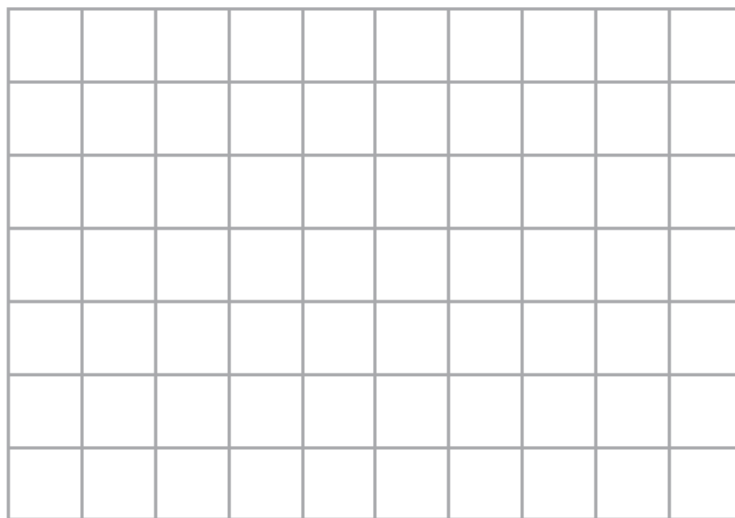
.....
(1)

(Total for Question 4 is 2 marks)

5 The diagram shows a rectangle.



On the centimetre grid below, draw an accurate scale drawing of this rectangle.
Use a scale of 1 cm to represent 4 m.



(Total for Question 5 is 2 marks)

6 Here is a list of whole numbers from 31 to 40

31 32 33 34 35 36 37 38 39 40

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

.....
(1)

(b) From the list, write down a multiple of 8

.....
(1)

(Total for Question 6 is 2 marks)

7 A builder has three sacks of sand, **A**, **B** and **C**.

Sack **A** and sack **B** contain the same amount of sand.
Bag **C** contains 54 kg of sand.

In the three bags, there is a total of 150 kg of sand.

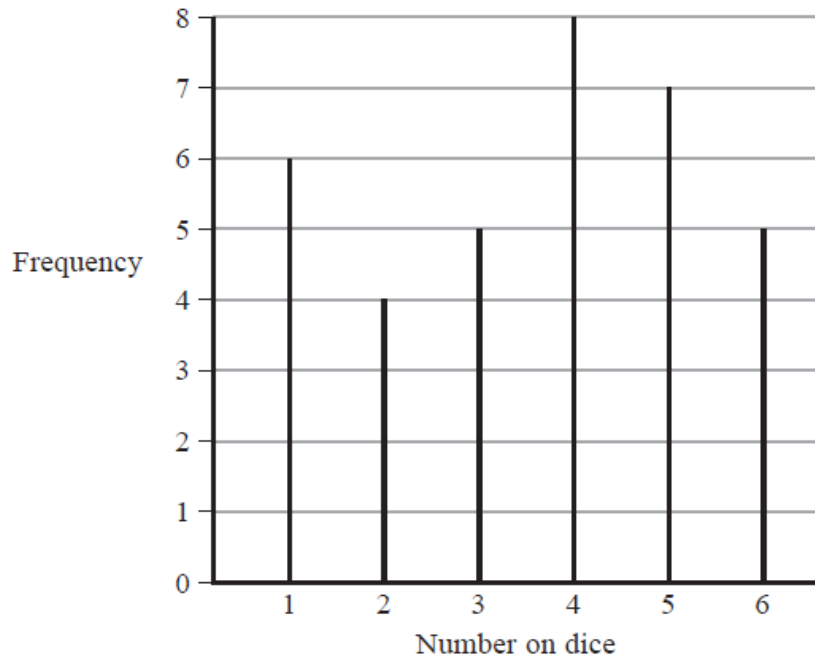
Work out the amount of sand in sack **A**.

..... kg

(Total for Question 7 is 3 marks)

- 8 7 girls 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.



Work out how many times each girl throws the dice.

.....
(Total for Question 8 is 3 marks)

9 Reece needs to work out the value of $5 \times 3 + 4$

He writes

$$3 + 4 = 7 \text{ and } 5 \times 7 = 35, \text{ so } 5 \times 3 + 4 = 35$$

Reece is wrong.
Explain why.

.....

.....

.....

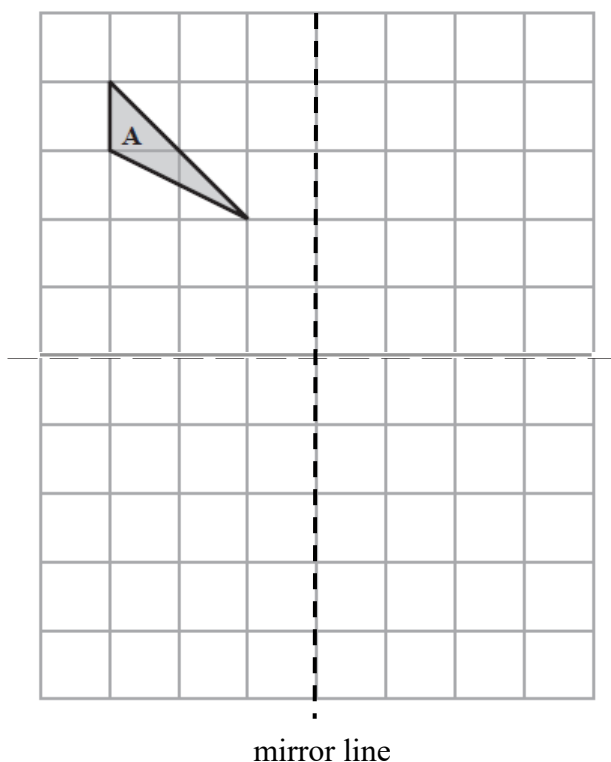
(Total for Question 9 is 1 mark)

10 Write 37 as a fraction of 70

.....

(Total for Question 10 is 1 mark)

11 Reflect shape A in the mirror line.



(Total for Question 11 is 2 marks)

12 (a) Work out $\sqrt{\frac{17.94}{6.07}}$

Write down all the figures on your calculator display.

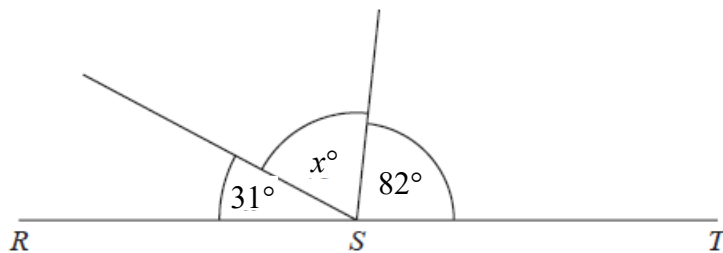
..... (2)

(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)

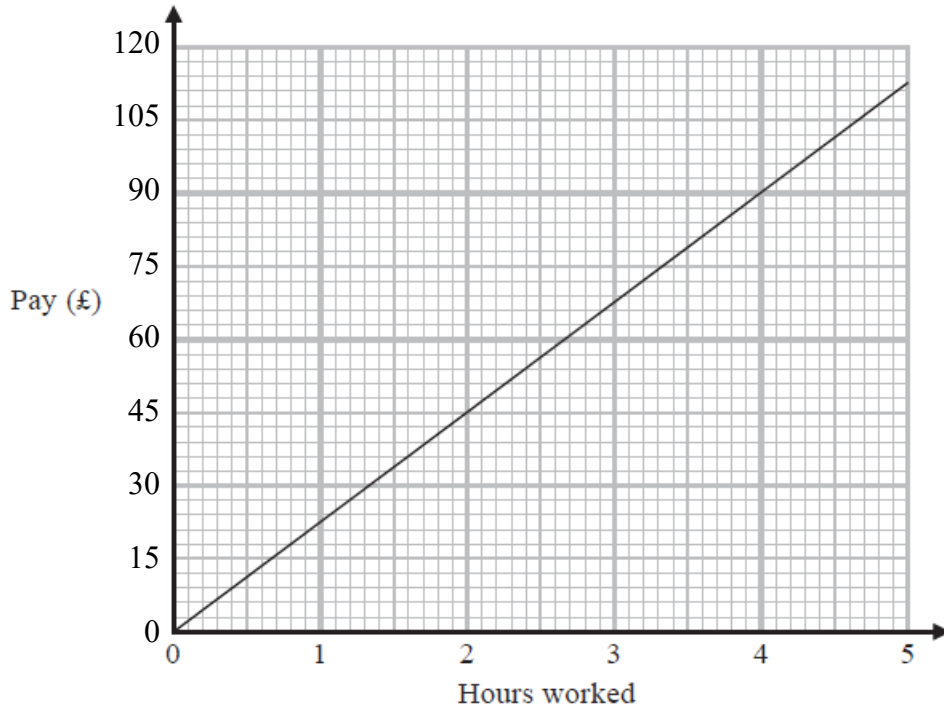
(ii) Give a reason for your answer.

.....

 (1)

(Total for Question 13 is 3 marks)

- 14 Japleen uses this graph to find out how much money she is paid for the number of hours she has worked.



- (a) How much money is Japleen paid for each hour she works?

£.....
(1)

Last week Japleen worked for 28 hours.

- (b) How much money was Japleen paid?

£.....
(2)

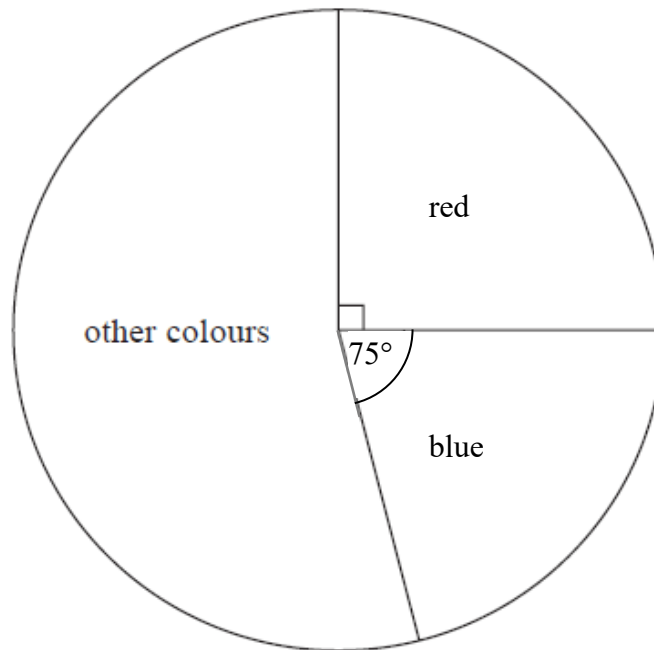
(Total for Question 14 is 3 marks)

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

$$\frac{2}{3} \quad \frac{2}{5} \quad \frac{5}{9} \quad \frac{3}{8}$$

.....
(Total for Question 15 is 2 marks)

16 The pie chart gives information about the colour of each shirt sold in a clothes shop.



There are 216 red shirts in the clothes shop.

(a) Work out the number of blue shirts in the clothes shop.

.....
(3)

There are 400 white shirts in the clothes shop.

A shirt in the clothes shop is picked at random.

(b) Find the probability that this shirt is white.

.....
(2)

(Total for Question 16 is 5 marks)

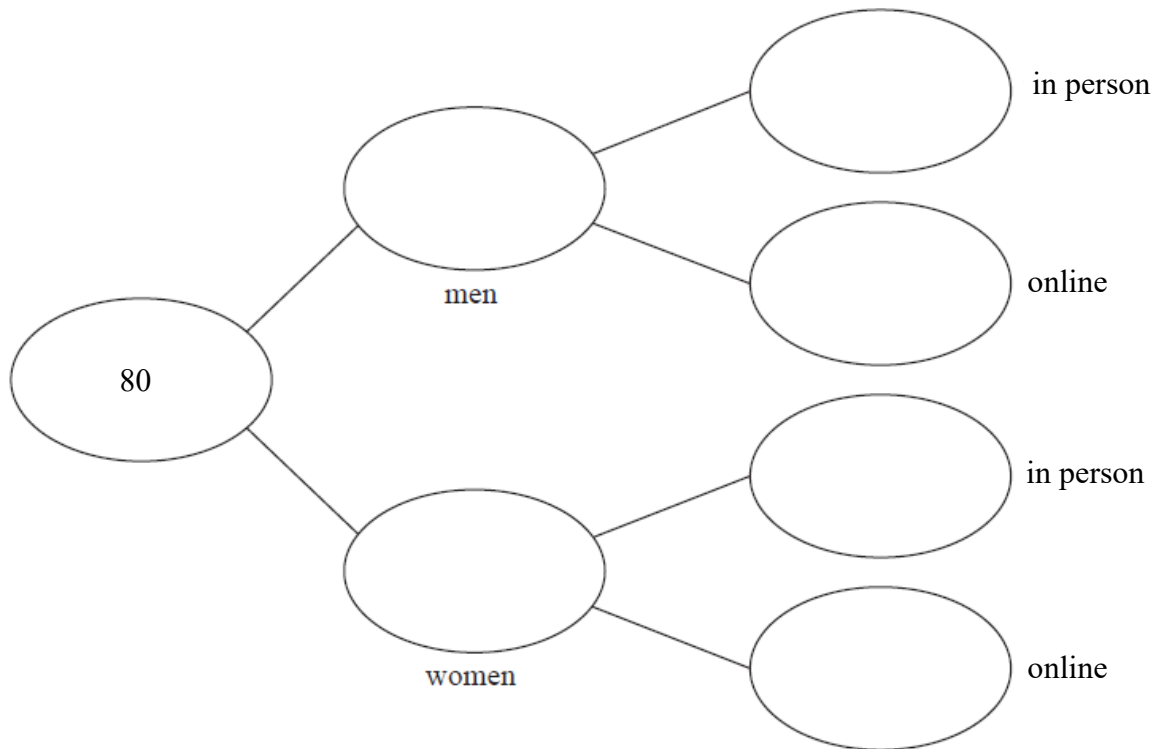
17 80 doctors are asked if they prefer consultations in person or online.

48 of the doctors are women and the rest are men.

10 of the men prefer to consultations online.

70% of the doctors prefer consultations in person.

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 rolls of fabric in Jenny's craft shop.

Length of roll (metres)	Number of rolls
5	16
6.5	10
7	
7.5	18
8	12

The total length of these rolls of fabric is 453 metres.

Work out the number of rolls of fabric of length 7 metres in Jenny's workshop.

.....
(Total for Question 18 is 3 marks)

19 Simon, Tamsy and Uzma share £1200 between them.

Simon gets $\frac{3}{8}$ of the £1200

Tamsy gets $\frac{1}{3}$ of the money that is left over.

Uzma gets the rest of the money.

Uzma says,

“I would have got more money if we had shared the £1200 equally between us.”

Is Uzma correct?

You must show how you get your answer.

(Total for Question 19 is 4 marks)

20 (a) Simplify $a^5 \div a^7$

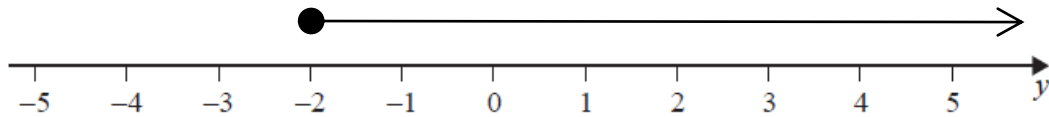
.....
(1)

(b) Simplify $(m^{-2})^5$

.....
(1)

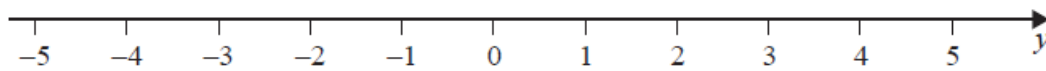
(Total for Question 20 is 2 marks)

21 (a) Write down the inequality shown on this number line.



.....
(1)

(b) On the number line below, show the inequality $-4 < y \leq 0$



(2)

(Total for Question 21 is 3 marks)

22 (a) Find the Highest Common Factor (HCF) of 72 and 108

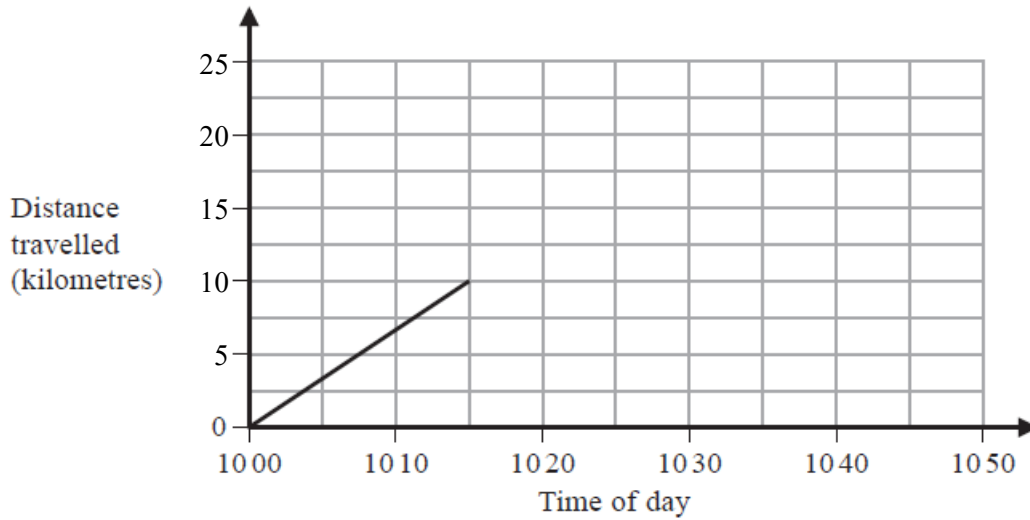
.....
(2)

(b) Find the Lowest Common Multiple (LCM) of 36 and 60

.....
(2)

(Total for Question 22 is 4 marks)

- 23 Kieran rides his scooter on a journey.
Here is the travel graph for the first 15 minutes of his journey.



- (a) Work out Kieran's speed, in km/h, for the first 15 minutes of his journey.

..... km/h
(2)

At 10:15 Kieran stops for 5 minutes and then rides for 30 minutes at a speed of 20 km/h.

- (b) On the grid, complete the travel graph for Kieran's journey.

(3)

(Total for Question 23 is 5 marks)

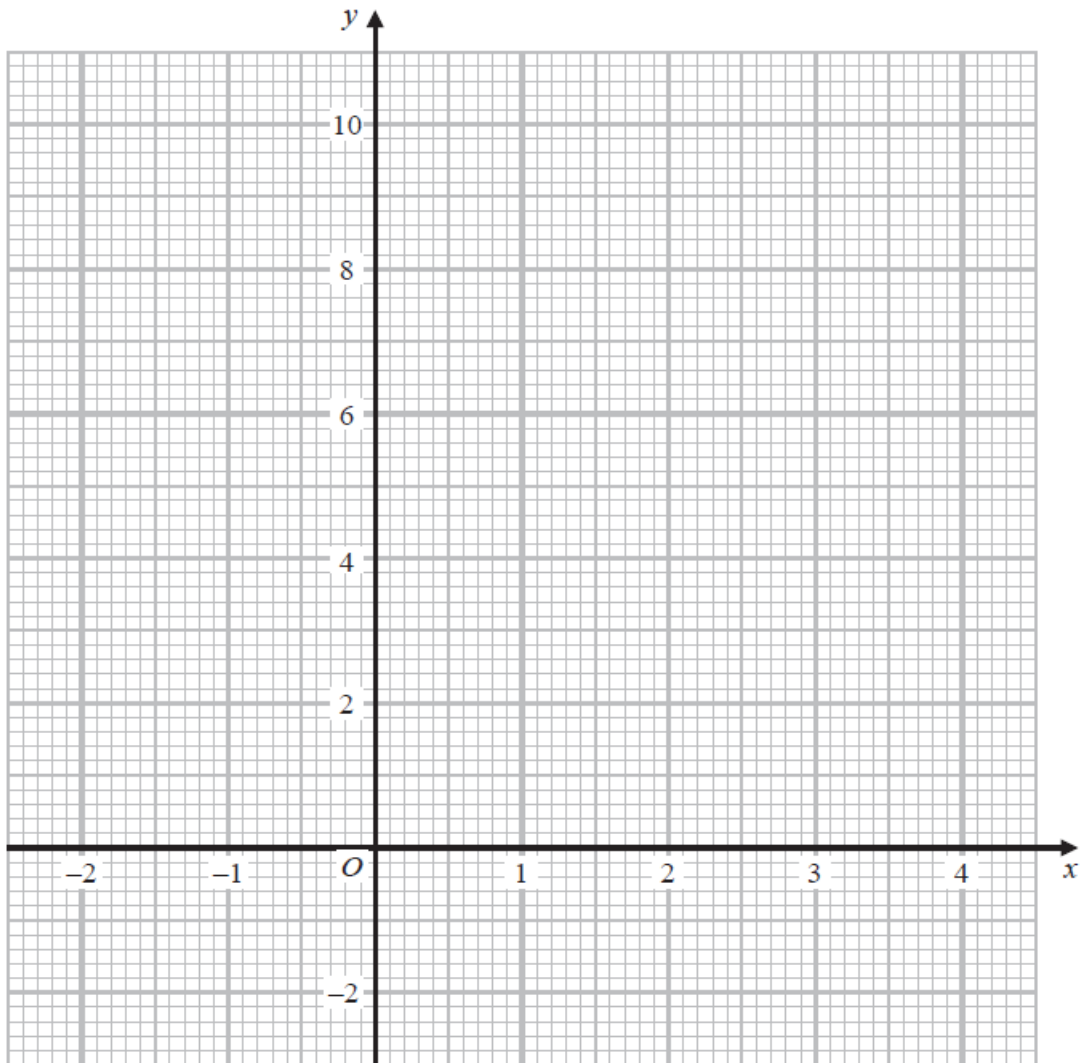
24 (a) Complete the table of values for $y = x^2 - 3x + 1$

x	-2	-1	0	1	2	3	4
y	11		1				5

(2)

(b) On the grid, draw the graph of $y = x^2 - 3x + 1$ for values of x from -2 to 4

(2)

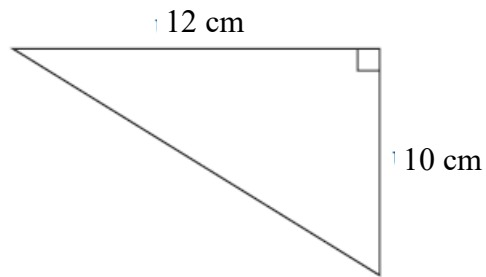


(c) Use your graph to find estimates of the solutions of the equation $x^2 - 3x + 1 = 4$

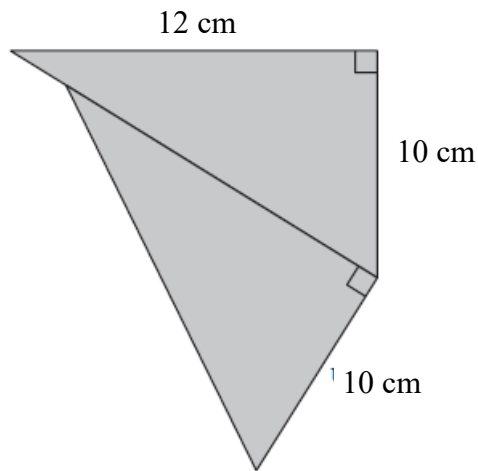
.....
(2)

(Total for Question 24 is 6 marks)

25 Here is a right-angled triangle.



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

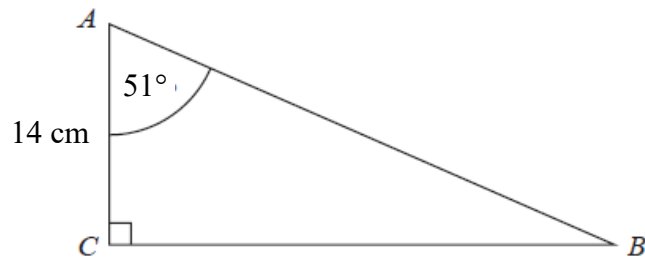


Work out the perimeter of the shaded shape.
Give your answer correct to 3 significant figures.

..... cm

(Total for Question 25 is 4 marks)

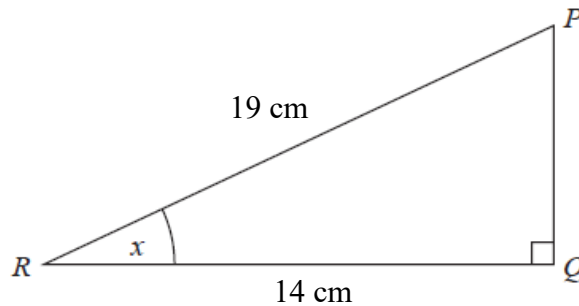
26 ABC is a right-angled triangle.



- (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.

..... $^\circ$
(2)

(Total for Question 26 is 4 marks)

27 Solve $x^2 - 4x - 21 = 0$

.....
(Total for Question 27 is 3 marks)

28 The original price of a house is reduced by 12%
The new price of the house is £325 600

Work out the original price of the house.

£.....
(Total for Question 28 is 2 marks)

TOTAL FOR PAPER IS 80 MARKS