

Mock Grade 5

Maths

Booklet 5

Paper 2H
Calculator

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- 1 The table shows some information about the foot lengths of 40 adults.

Foot length (f cm)	Number of adults
$16 \leq f < 18$	5
$18 \leq f < 20$	9
$20 \leq f < 22$	11
$22 \leq f < 24$	11
$24 \leq f < 26$	4

- (a) Write down the modal class interval.

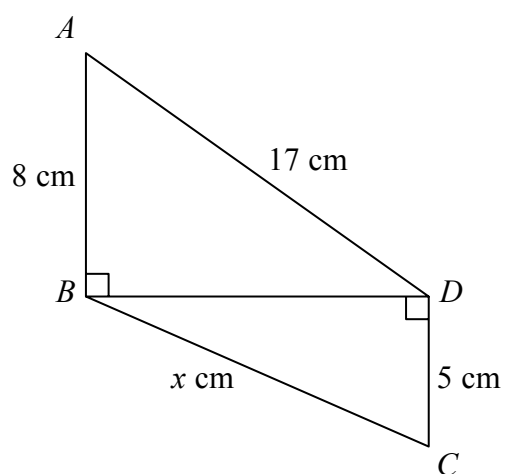
.....
(1)

- (b) Calculate an estimate for the mean foot length.

..... cm
(3)

(Total for Question 1 is 4 marks)

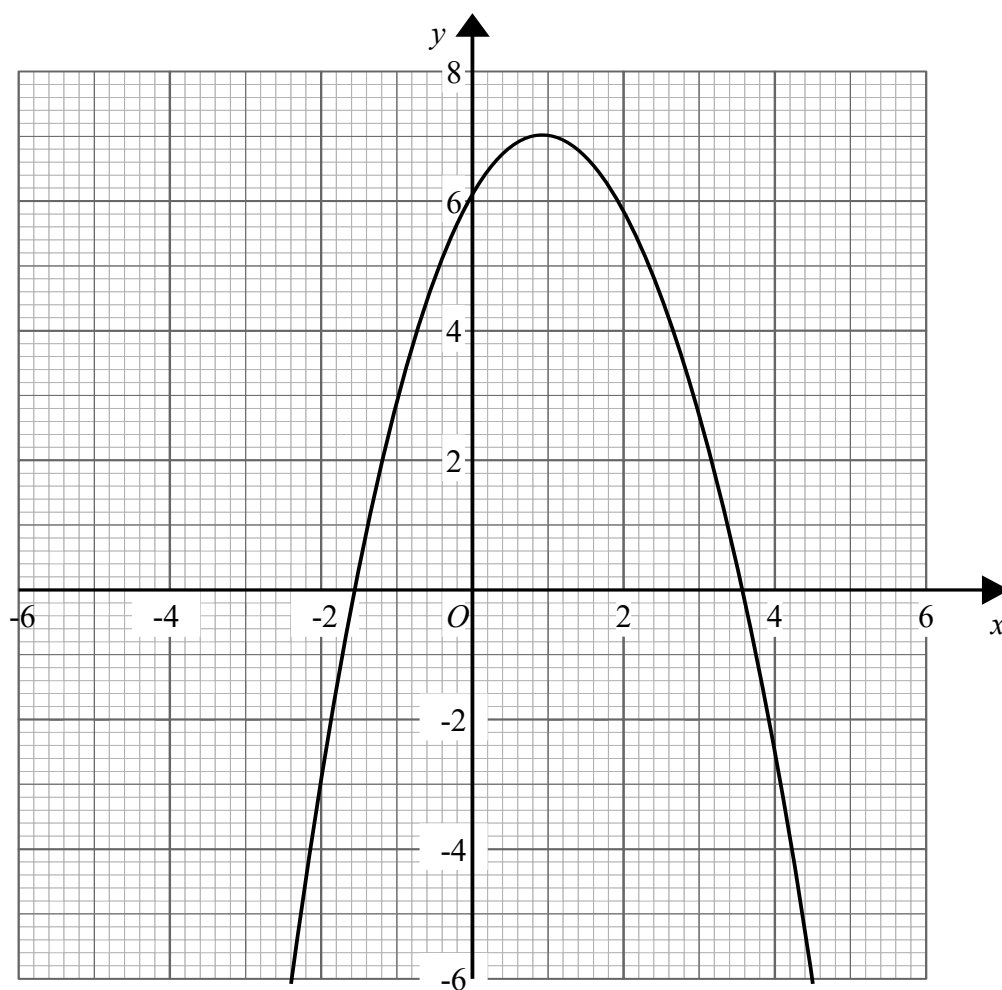
- 2 Triangles ABD and BCD are right-angled triangles.



Work out the value of x .
Give your answer correct to 2 decimal places.

(Total for Question 2 is 4 marks)

3 The graph of $y = f(x)$ is drawn on the grid.



(a) Write down the coordinates of the turning point of the graph.

(.....,)
(1)

(b) Write down the roots of $f(x) = 3$

.....
(1)

(c) Write down the value of $f(2)$

.....
(1)

(Total for Question 3 is 3 marks)

4 In a box of pens, there are

five times as many red pens as green pens

and four times as many green pens as blue pens.

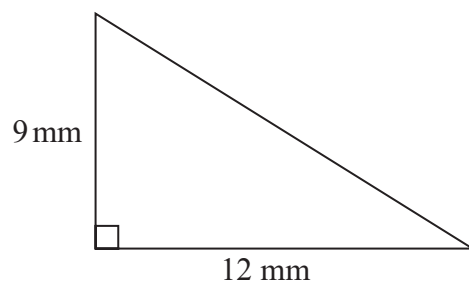
For the pens in the box, write down

the ratio of the number of red pens to the number of green pens to the number of blue pens.

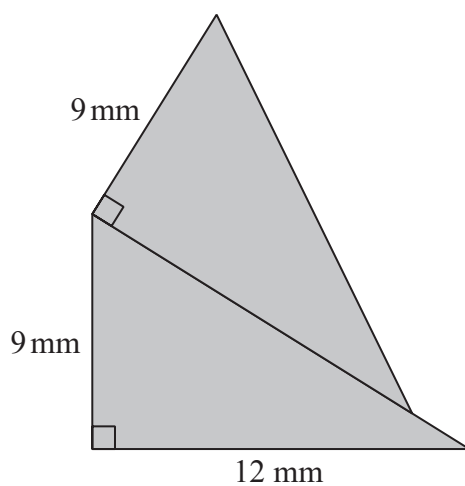
.....

(Total for Question 4 is 2 marks)

5 Here is a right-angled triangle.



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

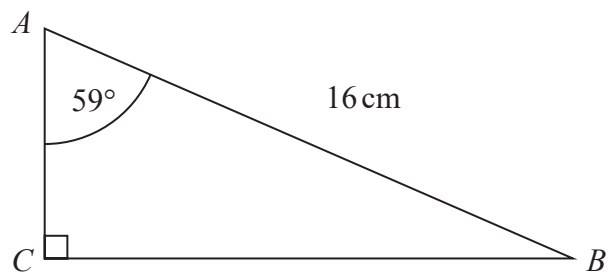


Work out the perimeter of the shaded shape.
Give your answer correct to 3 significant figures.

..... mm

(Total for Question 5 is 4 marks)

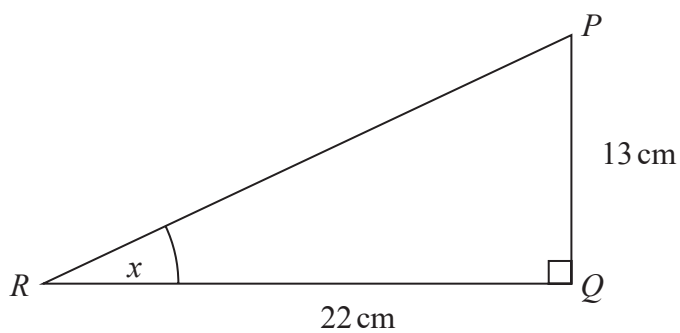
6 ABC is a right-angled triangle.



- (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 6 is 4 marks)

- 7 Liquid **A** has a density of 2.4 g/cm^3
Liquid **B** has a density of 2.7 g/cm^3

150 cm^3 of liquid **A** is mixed with 60 cm^3 of liquid **B** to make 210 cm^3 of liquid **C**.

Work out the density of liquid **C**.

..... g/cm^3

(Total for Question 7 is 3 marks)

8 The grouped frequency table gives information about the time, in minutes, taken by 50 people to solve a puzzle.

Time (t minutes)	Frequency
$0 < t \leq 10$	5
$10 < t \leq 20$	9
$20 < t \leq 30$	13
$30 < t \leq 40$	11
$40 < t \leq 50$	7
$50 < t \leq 60$	5

Brian was asked to draw a cumulative frequency table for this information.
This is the table that Brian drew.

Time (t minutes)	Cumulative frequency
$0 < t \leq 10$	5
$0 < t \leq 10$	14
$0 < t \leq 10$	27
$0 < t \leq 10$	38
$0 < t \leq 10$	45
$0 < t \leq 10$	50

Write down **one** thing that is wrong with this cumulative frequency table.

(Total for Question 8 is 1 mark)