

Silver Level

Question Paper 10

Level	IGCSE
Subject	Maths
Exam Board	Edexcel
Difficulty Level	Silver
Booklet	Question Paper 10

Time Allowed: 58 minutes

Score: /48

Percentage: /100

9	8	7	6	5	4	3	2	1
>90%	80%	70%	60%	50%	40%	30%	20%	<20%

1 The table shows the population of each of three countries in 2012.

Country	Population
India	1.21×10^9
Turkey	7.48×10^7
Singapore	5.2×10^6

(a) Find the total population of India, Turkey and Singapore in 2012.
Give your answer in standard form.

.....
(2)

Population density is calculated by the formula

$$\text{Population density} = \text{Population} \div \text{Land area}$$

The land area of India is $3.29 \times 10^6 \text{ km}^2$

(b) Calculate the population density of India in 2012.
Give your answer correct to 3 significant figures.

..... people/ km^2
(2)

(Total for Question 1 is 4 marks)

2

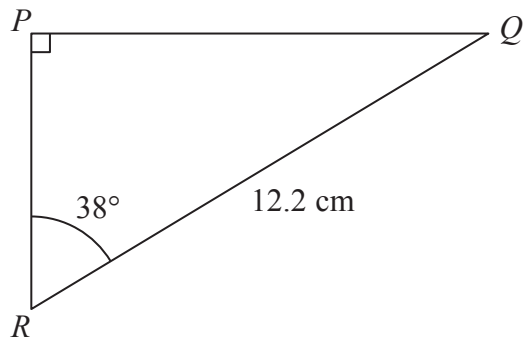


Diagram **NOT**
accurately drawn

Calculate the length of PQ .
Give your answer correct to 3 significant figures.

..... cm

(Total for Question 2 is 3 marks)

- 3 The diagram shows an accurate scale drawing of part of the boundary of a field.
The complete boundary of the field is in the shape of a quadrilateral $ABCD$.

$AB = 300$ metres.

$BC = 230$ metres.

Point B is due north of point C .

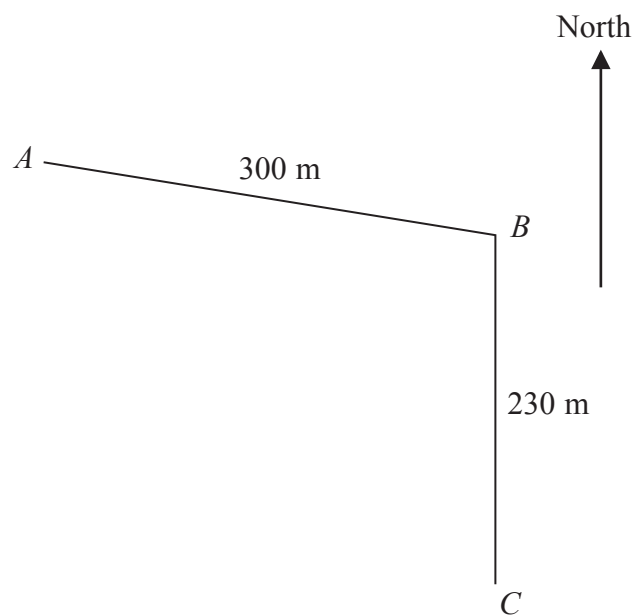
The scale of the diagram is 1 cm to 50 metres.

The bearing of D from C is 260°

$AD = 480$ metres.

Complete the scale drawing of the boundary of the field.

Mark the position of D .



4

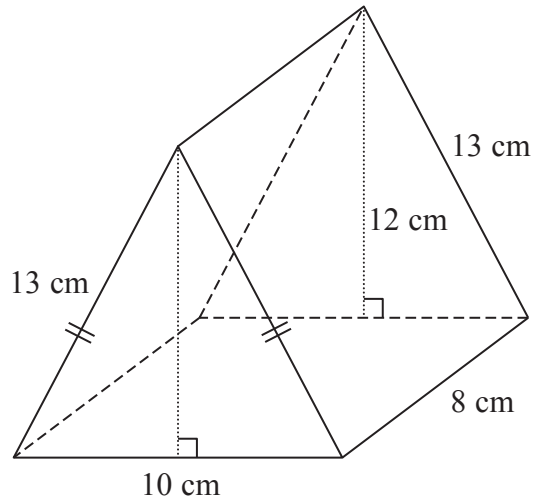


Diagram **NOT** accurately drawn

The diagram shows a prism.
 The cross-section of the prism is an isosceles triangle.
 The lengths of the sides of the triangle are 13 cm, 13 cm and 10 cm.
 The perpendicular height of the triangle is 12 cm.
 The length of the prism is 8 cm.

Work out the total surface area of the prism.

..... cm²

(Total for Question 4 is 3 marks)

5 Zara must take 5 tests.
 Each test is out of 100
 After 4 tests, her mean score is 64%.

What score must Zara get in her 5th test to increase her mean score in all 5 tests to 70%?

.....

(Total for Question 5 is 4 marks)

- 6 (a) Helen's savings increased from £155 to £167.40

Work out the percentage increase in Helen's savings.

..... %
(3)

- (b) Joe's savings increased by 4.5%.
His savings are now £125.40

What were his savings before the increase?

£.....
(3)

(Total for Question 6 is 6 marks)

7

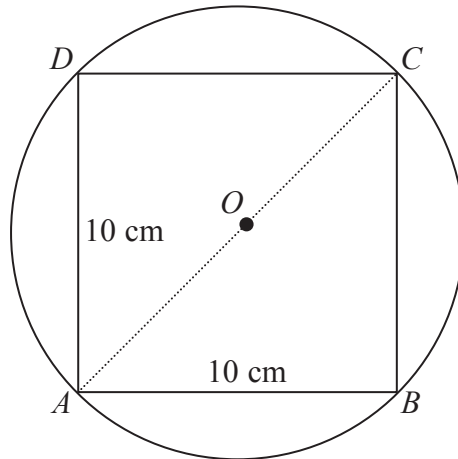


Diagram **NOT**
accurately drawn

The diagram shows a square $ABCD$ drawn inside a circle, centre O .
 A , B , C and D are points on the circle.
The lengths of the sides of the square are 10 cm.
 AC is a diameter of the circle.

Calculate the circumference of the circle.
Give your answer correct to 3 significant figures.

..... cm

(Total for Question 7 is 4 marks)

8 AEC and DEB are chords of a circle.

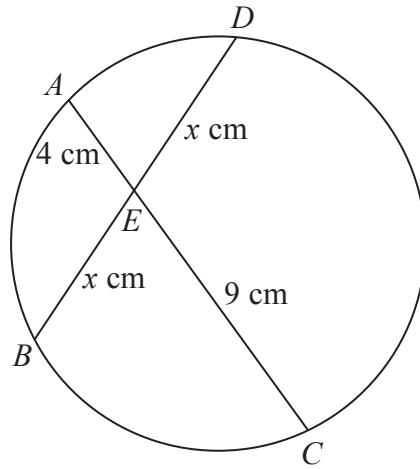


Diagram **NOT** accurately drawn

- $AE = 4$ cm.
- $CE = 9$ cm.
- $DE = BE = x$ cm.

Calculate the value of x .

$x = \dots\dots\dots$

(Total for Question 8 is 2 marks)

9 Freya keeps hens.

The table shows information about the number of boxes of eggs she sold in each of 52 weeks.

Number of boxes sold in a week	Number of weeks
0 to 4	2
5 to 9	6
10 to 14	20
15 to 19	13
20 to 24	8
25 to 29	3

(a) Write down the modal class.

.....
(1)

(b) Work out an estimate for the mean number of boxes of eggs that Freya sold each week.
Give your answer correct to 3 significant figures.

.....
(4)

Dan picks at random one of the 52 weeks.

(c) Find the probability that in this week Freya sold at least 15 boxes of eggs.

.....
(2)

(Total for Question 9 is 7 marks)

10 The table gives some information about the average price of a litre of petrol in England.

	January 2007	January 2012
Average price of a litre of petrol (pence)	87.3	133.3

(a) Work out the percentage increase in the average price of a litre of petrol in England between January 2007 and January 2012.
Give your answer correct to 3 significant figures.

..... %
(3)

The average price of a litre of petrol in England increased by 20% from January 2010 to January 2012.

- (b) Work out the average price of a litre of petrol in England in January 2010.
Give your answer in pence, correct to 1 decimal place.

..... pence

(3)

(Total for Question 10 is 6 marks)

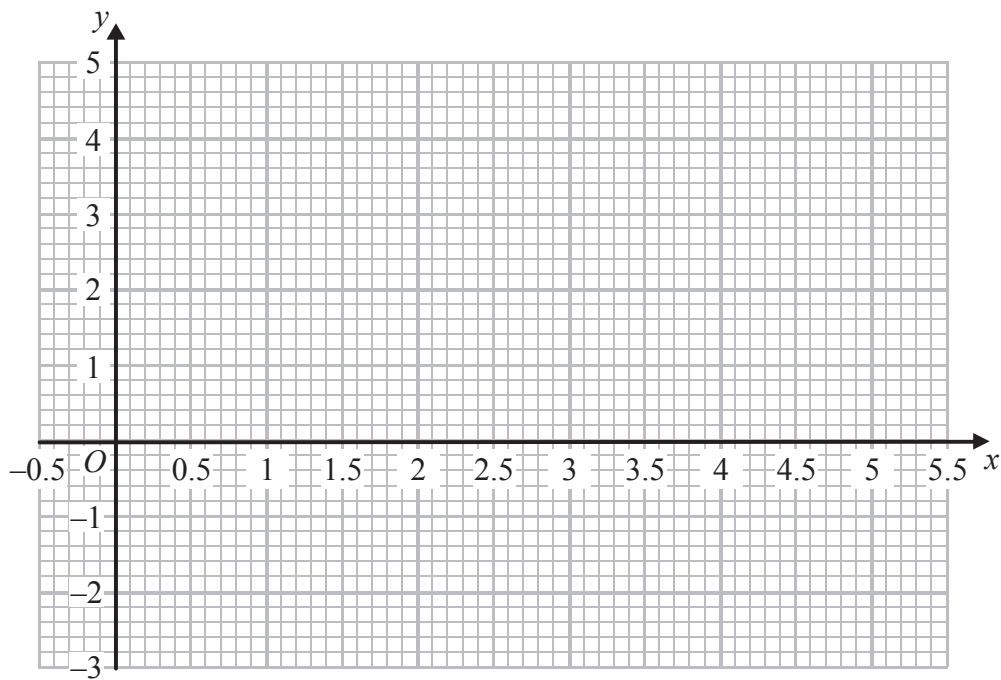
11 (a) Complete the table of values for $y = x^2 - 5x + 4$

x	0	1	2	3	4	5
y			-2			4

(2)

(b) On the grid, draw the graph of $y = x^2 - 5x + 4$ for all values of x from $x = 0$ to $x = 5$

(2)



(Total for Question 11 is 4 marks)

- 12 A cylinder has diameter 12 cm and length 30 cm.

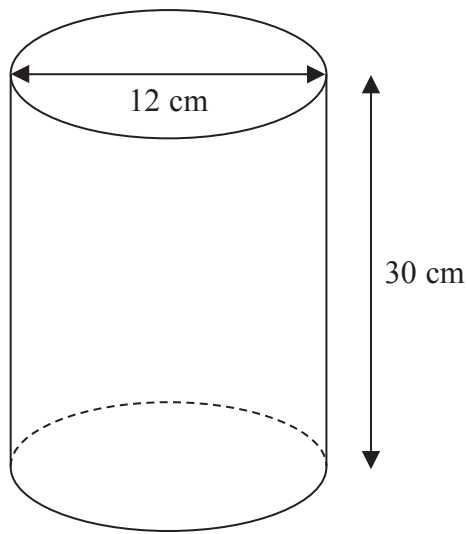


Diagram **NOT** accurately drawn

Work out the curved surface area of the cylinder.
Give your answer correct to 3 significant figures.

..... cm²

(Total for Question 12 is 3 marks)