

Silver Level

Question Paper 9

Level	IGCSE
Subject	Maths
Exam Board	Edexcel
Difficulty Level	Silver
Booklet	Question Paper 9

Time Allowed: 57 minutes

Score: /47

Percentage: /100

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

1 Find the Lowest Common Multiple (LCM) of 20 and 24

.....
(Total for Question 1 is 2 marks)

2

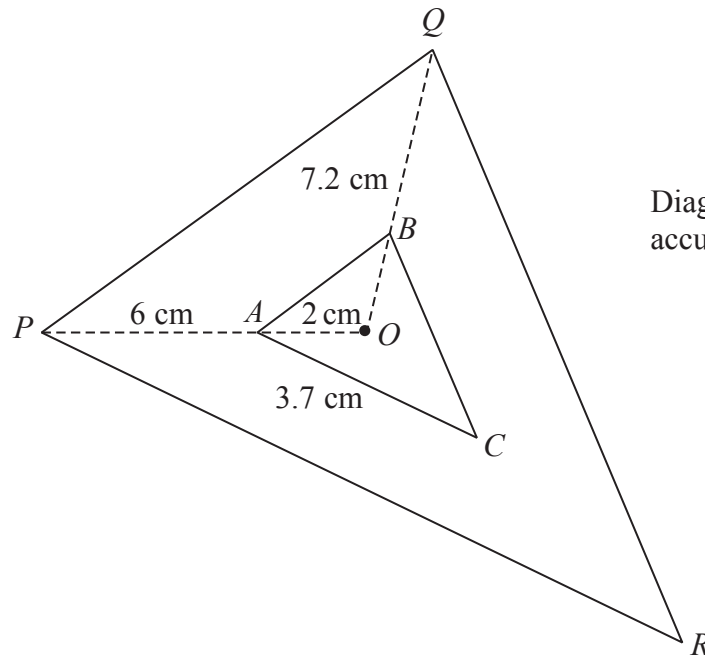


Diagram **NOT** accurately drawn

Triangle PQR is an enlargement, centre O , of triangle ABC .

OAP and OBQ are straight lines.

$OA = 2$ cm.

$AP = 6$ cm.

$BQ = 7.2$ cm.

$AC = 3.7$ cm.

(a) Work out the length of OB .

..... cm

(2)

(b) Work out the length of PR .

..... cm

(3)

The area of triangle PQR is 72 cm^2

(c) Work out the area of triangle ABC .

..... cm^2
(2)

(Total for Question 2 is 7 marks)

- 3 (a) Solve the simultaneous equations $3x + 5y = 14$
 $4x + 3y = 4$

Show clear algebraic working.

$x =$

$y =$
(4)

- (b) Write down the coordinates of the point of intersection of the two lines whose equations are $3x + 5y = 14$ and $4x + 3y = 4$

(..... ,)
(1)

(Total for Question 3 is 5 marks)

4

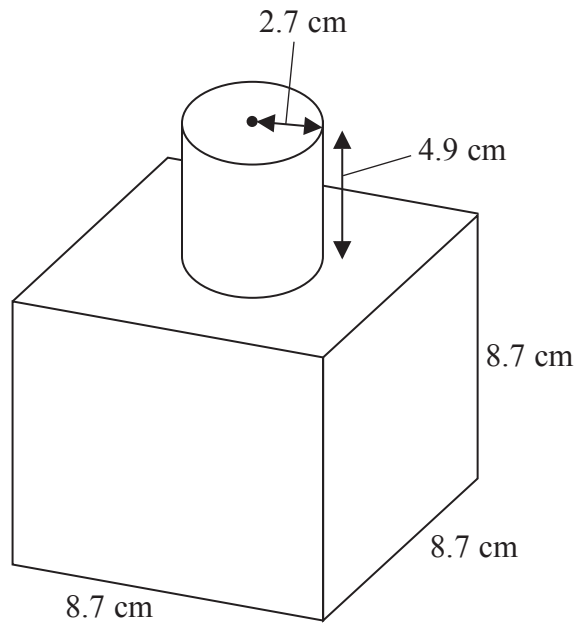


Diagram **NOT** accurately drawn

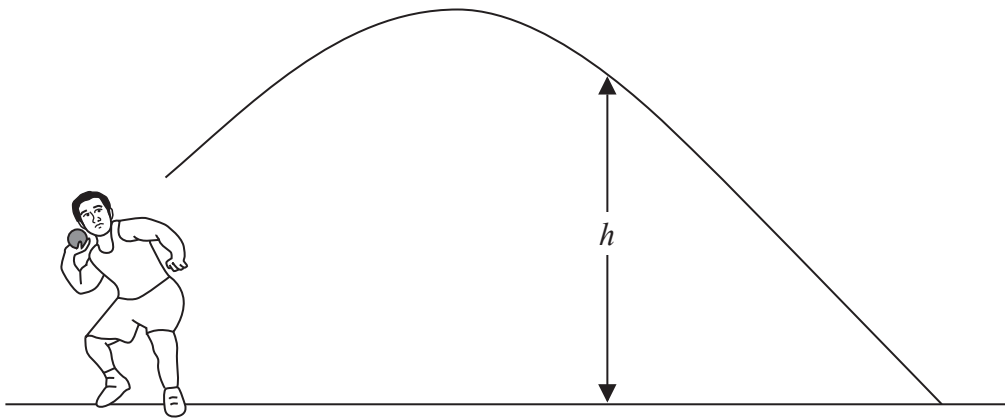
The diagram shows a shape made from a solid cube and a solid cylinder.
The cube has sides of length 8.7 cm.
The cylinder has a radius of 2.7 cm and a height of 4.9 cm.

Calculate the total surface area of the solid shape.
Give your answer correct to 3 significant figures.

..... cm²

(Total for Question 4 is 3 marks)

5



Ivan is a shot putter.

The formula $h = 2 + 6t - 5t^2$ gives the height, h metres, of the shot above the ground t seconds after he has released the shot.

- (i) Solve $2 + 6t - 5t^2 = 0$
Give your solutions correct to 3 significant figures.
Show your working clearly.

.....
The shot hits the ground after T seconds.

- (ii) Write down the value of T .
Give your answer correct to 3 significant figures.

$T = \dots\dots\dots$

(Total for Question 5 is 4 marks)

6 Express 825 as a product of its prime factors.

.....
(Total for Question 6 is 3 marks)

7 The mean of four numbers is 2.6
One of the four numbers is 5

Find the mean of the other three numbers.

.....
(Total for Question 7 is 3 marks)

8 The table shows the land areas, in km^2 , of four countries.

Country	Land area (km^2)
Ethiopia	1.13×10^6
Algeria	2.38×10^6
Nigeria	9.24×10^5
Kenya	5.83×10^5

(a) Which country has the largest land area?

.....
(1)

(b) Calculate the total land area, in km^2 , of all four countries.
Give your answer in standard form.

..... km^2
(2)

Population density is calculated by the formula

Population density = Population \div Land area

(c) In one year, the population of Ethiopia was 7.91×10^7
Calculate the population density of Ethiopia for that year.

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

(Total for Question 8 is 5 marks)

9

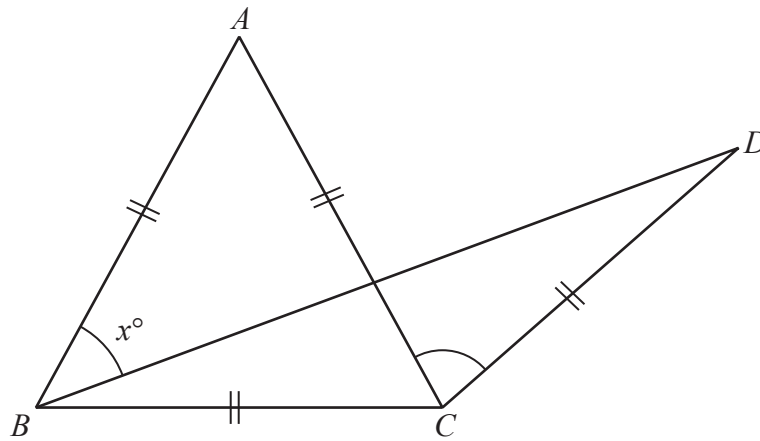


Diagram **NOT** accurately drawn

The diagram shows an equilateral triangle ABC and an isosceles triangle BCD .
 $AB = AC = BC = CD$.
 Angle $ABD = x^\circ$

Express the size of angle ACD in terms of x° , giving your answer as simply as possible.
 Give a reason for each step in your working.

.....
 (Total for Question 9 is 4 marks)

10 Factorise fully $4(x - 5)^2 + 3(x - 5)$

.....
 (Total for Question 10 is 2 marks)

11 On a map, 4 centimetres represents a real distance of 1 kilometre.

- (a) On the map, the distance between two points is 14 cm.
Work out the real distance between these two points.
Give your answer in kilometres.

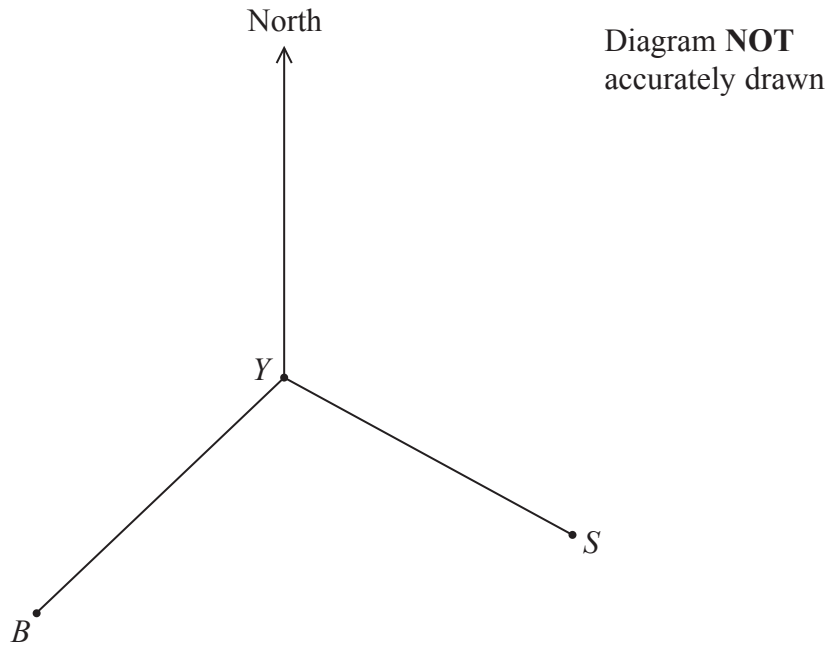
..... km
(2)

- (b) Work out the scale of the map in the form 1 : n

1 :
(2)

(Total for Question 11 is 4 marks)

12



The diagram shows the positions of a yacht Y , a ship S and a beacon B .
The bearing of B from Y is 228°

(a) Find the bearing of Y from B .

.....
(2)

The bearing of S from Y is 118°

(b) Find the size of the angle BYS .

.....
(1)

(c) Given also that $BY = SY$, find the bearing of S from B .

.....
(2)

(Total for Question 12 is 5 marks)