Silver Level

Question Paper 13

Level	IGCSE
Subject	Maths
Exam Board	Edexcel
Difficulty Level	Silver
Booklet	Question Paper 13

Time Allowed: **53 minutes**

Score: **/44**

Percentage: **/100**

Grade Boundaries:

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

1

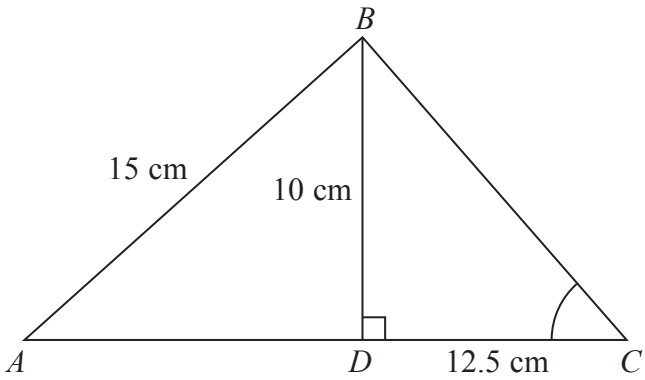

Diagram **NOT** accurately drawn

ABC is a triangle.
The point *D* lies on *AC*.
Angle *BDC* = 90°
BD = 10 cm, *AB* = 15 cm and *DC* = 12.5 cm.

(a) Calculate the length of *AD*.
Give your answer correct to 3 significant figures.

..... cm
(3)

(b) Calculate the size of angle *BCD*.
Give your answer correct to 1 decimal place.

°
.....
(3)

(Total for Question 1 is 6 marks)

2 (a) Find the sum of the interior angles of a polygon with 7 sides.

.....°

(2)

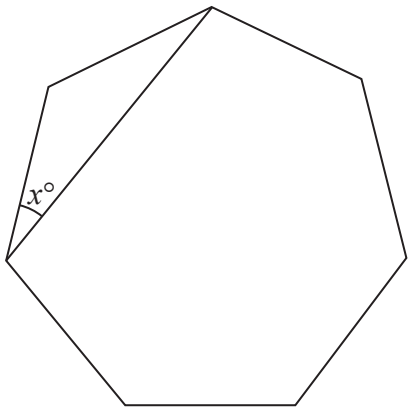

Diagram **NOT** accurately drawn

The diagram shows a regular polygon with 7 sides.

(b) Work out the value of x.
Give your answer correct to 1 decimal place.

.....

(2)

(Total for Question 2 is 4 marks)

3 (a) Find the gradient of the line with equation $3y - 2x = 6$

.....

(2)

(b) Find an equation of the line with gradient -3 that passes through the point $(2, 5)$.

.....

(2)

(Total for Question 3 is 4 marks)

4

$3780 = 2^2 \times 3^3 \times 5 \times 7$	$3240 = 2^3 \times 3^4 \times 5$

(a) Find the highest common factor (HCF) of 3780 and 3240
Give your answer as a product of prime factors.

.....

(2)

(b) Find the lowest common multiple (LCM) of 3780 and 3240
Give your answer as a product of prime factors.

.....

(2)

(Total for Question 4 is 4 marks)

5 Solve the simultaneous equations

$$5y - 4x = 8$$
$$y + x = 7$$

Show clear algebraic working.

$x =$ .....

$y =$ .....

(Total for Question 5 is 3 marks)

6 A is the point with coordinates (4, 1)
B is the point with coordinates (1, 9)

Find the coordinates of the midpoint of AB.

(..... , ...)

(Total for Question 6 is 2 marks)

7

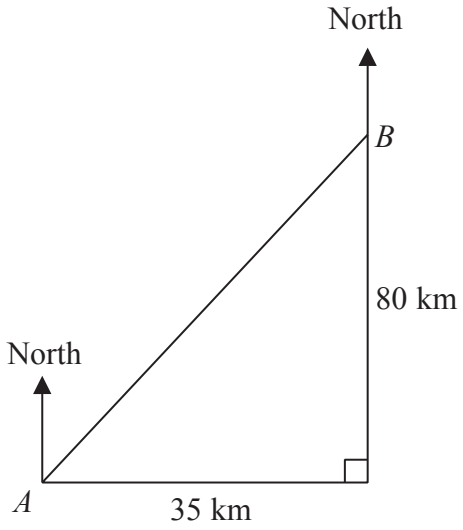

Diagram **NOT** accurately drawn

Town *B* is 35 km east and 80 km north of town *A*.

Work out the bearing of *A* from *B*.
Give your answer correct to the nearest degree.

.....°

(Total for Question 7 is 4 marks)

8 Given that $A = 2^3 \times 3$ and $B = 2^2 \times 3^2$

find the Lowest Common Multiple (LCM) of A and B.

.....

(Total for Question 8 is 2 marks)

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9 The size of each interior angle of a regular polygon with n sides is 140°

Work out the size of each interior angle of a regular polygon with $2n$ sides.

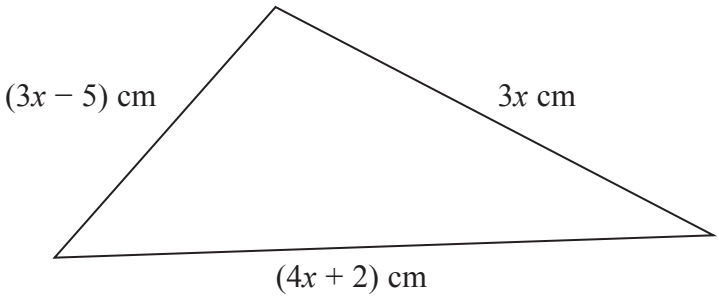
°

.....

(Total for Question 9 is 5 marks)

10 The diagram shows a triangle.

Diagram **NOT** accurately drawn



The lengths of the sides of the triangle are $3x$ cm, $(3x - 5)$ cm and $(4x + 2)$ cm.

The perimeter of the triangle is 62 cm.

Work out the value of x.
Show clear algebraic working.

$x =$ .....

(Total for Question 10 is 4 marks)

11 Three positive whole numbers are all different.
The numbers have a median of 8 and a mean of 6
Find the three numbers.

.....

(Total for Question 11 is 2 marks)

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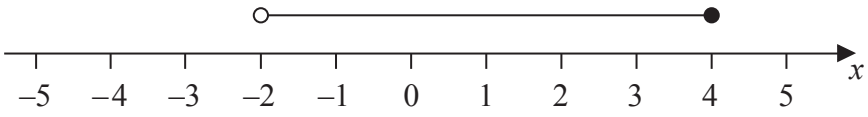
12 (a) Solve the inequality $3x + 8 < 35$

.....

(2)

(b) Write down the inequality shown on the number line.



.....

(2)

(Total for Question 12 is 4 marks)