

Silver Level

Question Paper 5

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| Level | IGCSE |
| Subject | Maths |
| Exam Board | Edexcel |
| Difficulty Level | Silver |
| Booklet | Question Paper 5 |

Time Allowed: 58 minutes

Score: /48

Percentage: /100

Grade Boundaries:

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

1 $\frac{5}{9}$ of the students in a group are male.

$\frac{5}{6}$ of the **female** students in the group are right-handed.

(a) Work out the fraction of students in the group who are right-handed females.

.....
(3)

(b) Find the smallest possible number of students in the group.

.....
(2)

(Total for Question 1 is 5 marks)

2 Solve $\frac{2}{5x-2} = \frac{3}{6x+1}$

Show clear algebraic working.

$x = \dots\dots\dots$

(Total for Question 2 is 4 marks)

3 Solve $5x^2 + 2x - 4 = 0$

Give your solutions correct to 3 significant figures.

Show your working clearly.

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

4

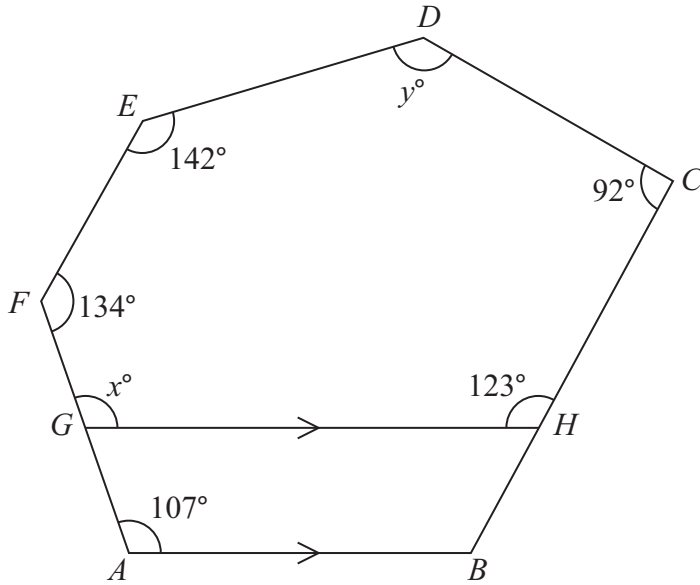


Diagram **NOT** accurately drawn

$ABCDEF$ is a hexagon.
 G is a point on AF .
 H is a point on BC .
 GH is parallel to AB .

(a) Give a reason why $x = 107$

(1)

(b) Work out the value of y .

$y = \dots\dots\dots$
 (4)

(Total for Question 4 is 5 marks)

5

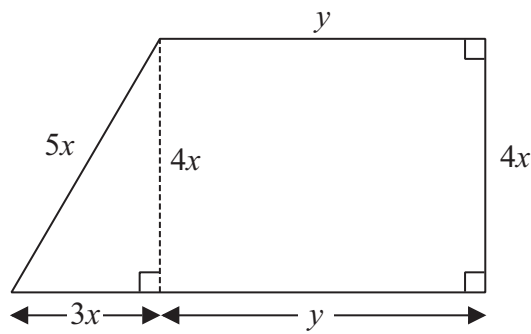


Diagram **NOT** accurately drawn

The shape in the diagram is made from a rectangle and a right-angled triangle. The diagram shows, in terms of x and y , the lengths, in centimetres, of the sides of the rectangle and of the triangle.

The perimeter, P cm, of the shape is given by the formula

$$P = 12x + 2y$$

(a) Work out the value of x when $P = 43$ and $y = 6.5$

$$x = \dots\dots\dots$$

(3)

(b) Find, in terms of x and y , a formula for the area, A cm², of the shape. Give your answer as simply as possible.

$$A = \dots\dots\dots$$

(2)

(Total for Question 5 is 5 marks)

6 An airline increases the prices of its flights by 8%.

(a) Before the increase, the price of a flight to Cairo was £475

Work out the price of a flight to Cairo after the increase.

£.....
(3)

(b) The increase in price of a flight to Mumbai was £48

Work out the price of a flight to Mumbai after the increase.

£.....
(3)

(Total for Question 6 is 6 marks)

7

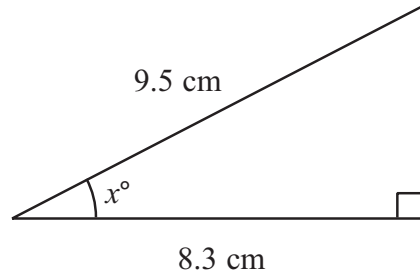


Diagram **NOT** accurately drawn

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

$x = \dots\dots\dots$

(Total for Question 7 is 3 marks)

8 (a) Find the Highest Common Factor (HCF) of 54 and 90

$\dots\dots\dots$
(2)

(b) Find the Lowest Common Multiple (LCM) of 54 and 90

$\dots\dots\dots$
(2)

(Total for Question 8 is 4 marks)

9 (a) Simplify $4p^3q^5 \times 6p^2q$

.....
(2)

(b) Simplify $(5x^2y^4)^3$

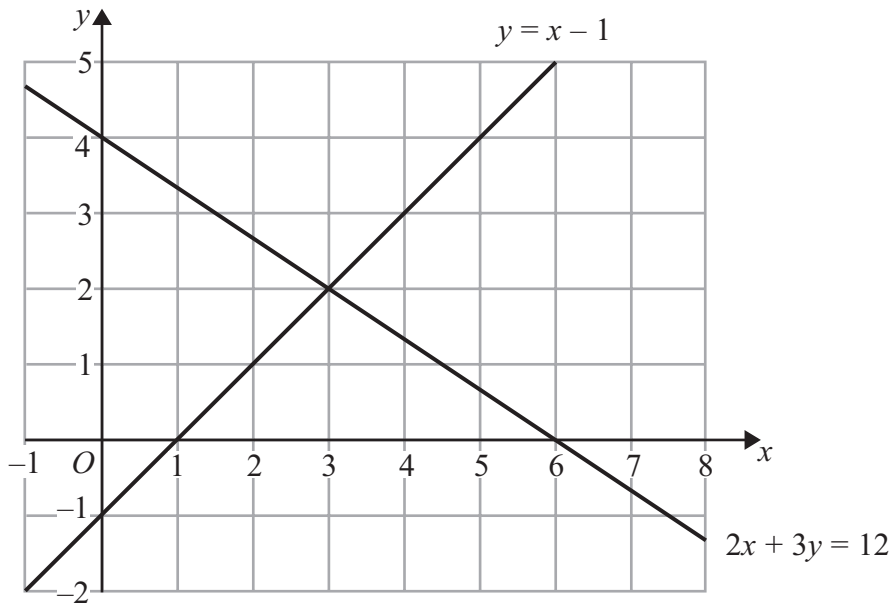
.....
(2)

(c) Factorise $9a^2 - b^2$

.....
(2)

(Total for Question 9 is 6 marks)

10



The diagram shows two straight lines.
The equations of the lines are $y = x - 1$ and $2x + 3y = 12$

(a) Write down the solution of the simultaneous equations

$$\begin{aligned} y &= x - 1 \\ 2x + 3y &= 12 \end{aligned}$$

$x = \dots\dots\dots$, $y = \dots\dots\dots$
(1)

(b) Find an equation of the line which is parallel to the line with equation $2x + 3y = 12$ and passes through the point (0, 10)

.....
(4)

(c) On the grid, mark with a cross (×) each point which satisfies both these inequalities $y > x - 1$ and $2x + 3y < 12$ and whose coordinates are **positive integers**.

(2)