

# Bronze Level

## Question Paper 10

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

**Time Allowed:** 58 minutes

**Score:** /48

**Percentage:** /100

**Grade Boundaries:**

9	8	7	6	5	4	3	2	1
>95%	85%	75%	65%	55%	45%	35%	25%	<25%

1 (a) Show that  $\frac{4}{5} + \frac{2}{3} = 1\frac{7}{15}$

(2)

(b) Show that  $2\frac{1}{4} \div 3\frac{1}{2} = \frac{9}{14}$

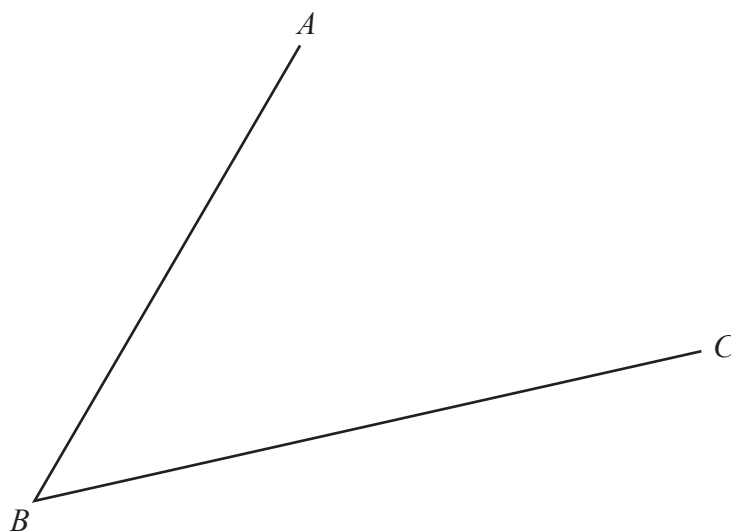
(3)

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(Total for Question 1 is 5 marks)

2 Use ruler and compasses to construct the bisector of angle  $ABC$ .

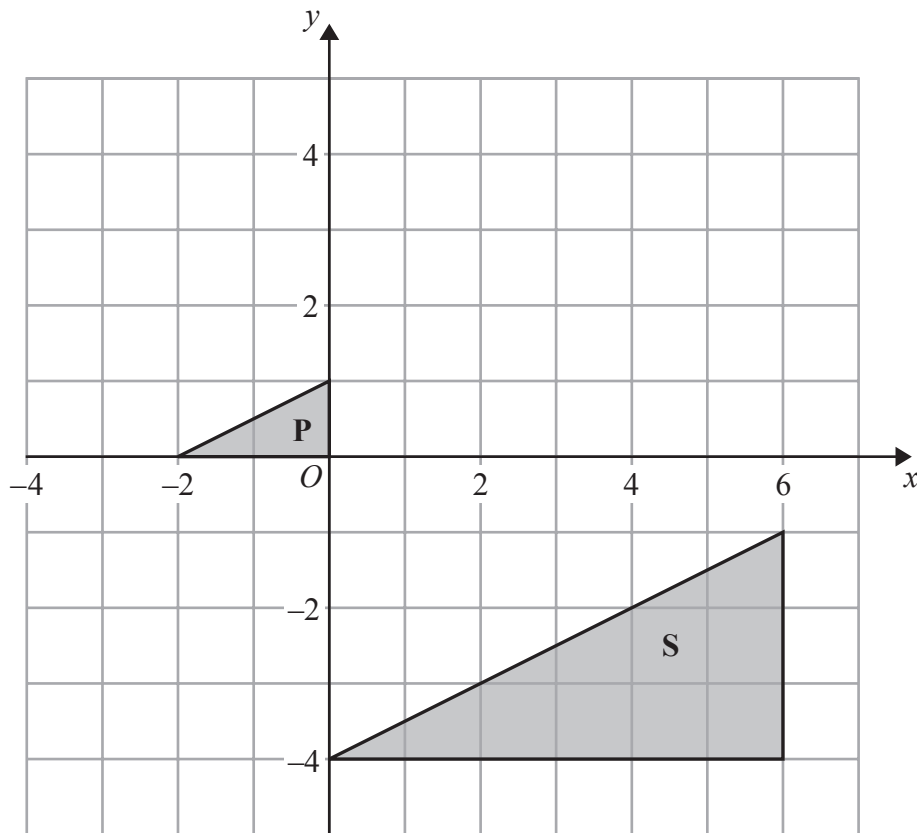
You must show all of your construction lines.



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(Total for Question 2 is 2 marks)

3



- (a) On the grid, translate triangle **P** by the vector  $\begin{pmatrix} 2 \\ -1 \end{pmatrix}$   
 Label the new triangle **Q**.

(1)

- (b) Describe fully the single transformation that maps triangle **P** onto triangle **S**.

.....

.....

(3)

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(Total for Question 3 is 4 marks)

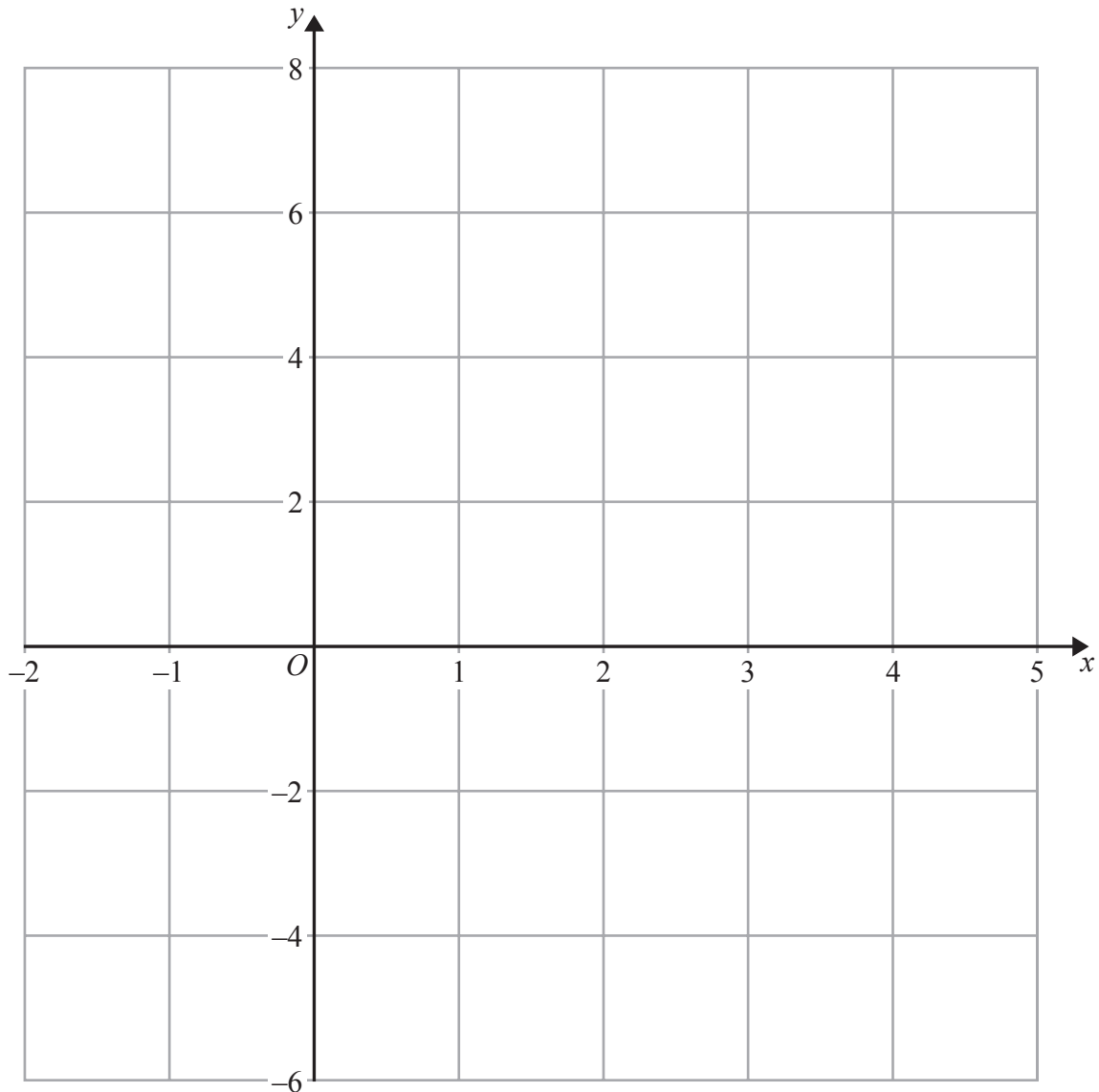
4 (a) Complete the table of values for  $2x + y = 4$

$x$	-1	2	4
$y$			

(2)

(b) On the grid, draw the graph of  $2x + y = 4$  for values of  $x$  from -1 to 4

(2)



(c) Show, by shading on the grid, the region which satisfies **all three** of the inequalities

$$x \geq -1, \quad y \geq 2 \quad \text{and} \quad 2x + y \leq 4$$

Label the region **R**.

(2)

(Total for Question 4 is 6 marks)

5 (a) Work out the value of  $\frac{13.8 \times 6.5}{7 + \sqrt{2}}$

Write down all the figures on your calculator display.

.....  
(2)

(b) Give your answer to part (a) correct to 3 significant figures.

.....  
(1)

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(Total for Question 5 is 3 marks)

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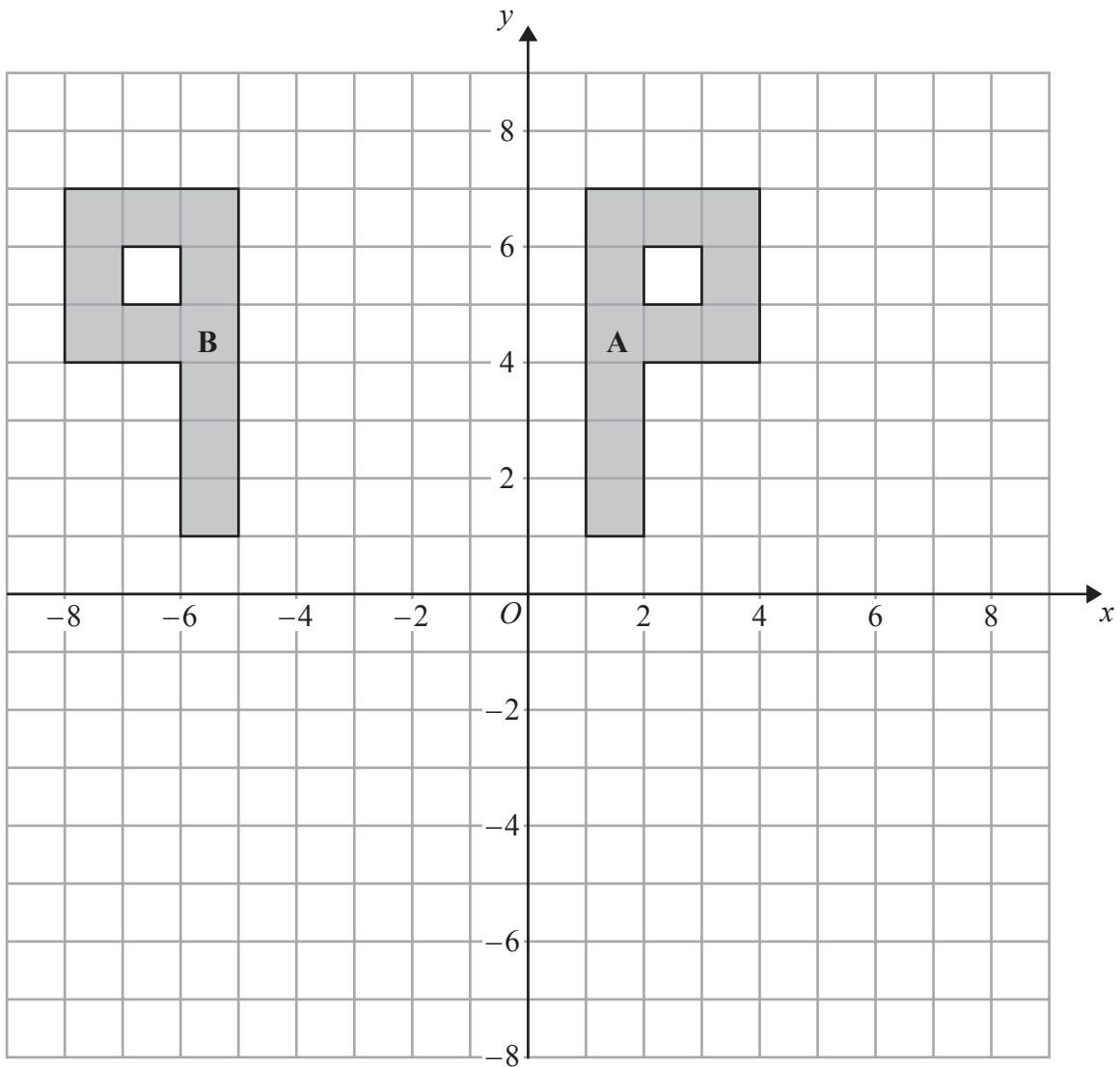
6 Show that  $\frac{4}{9} \div \frac{5}{6} = \frac{8}{15}$

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(Total for Question 6 is 2 marks)

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7



(a) Describe fully the single transformation that maps shape A onto shape B.

(2)

(b) On the grid, rotate shape A  $90^\circ$  clockwise about the origin  $O$ .  
Label the new shape C.

(2)

(Total for Question 7 is 4 marks)

8 (a) Simplify  $8d \times 7d$

.....  
(1)

(b) Expand  $4(3e - 5)$

.....  
(1)

(c) Factorise  $f^2 - 2f$

.....  
(2)

(d)  $H = g^3 + 6g$

Work out the value of  $H$  when  $g = 2$

$H =$  .....  
(2)

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(Total for Question 8 is 6 marks)

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9 (a)  $A = \{p, r, a, g, u, e\}$

$$B = \{p, a, r, i, s\}$$

$$C = \{b, u, d, a, p, e, s, t\}$$

List the members of the set

(i)  $A \cap B$

(ii)  $B \cup C$

.....  
.....  
(2)

(b)  $D = \{r, o, m, e\}$

$$E = \{l, i, s, b, o, n\}$$

$$F = \{b, e, r, l, i, n\}$$

Put one of the letters  $D$ ,  $E$  or  $F$  in the box below to make the statement correct.

$$A \cap \boxed{\phantom{D}} = \emptyset$$

Explain your answer.

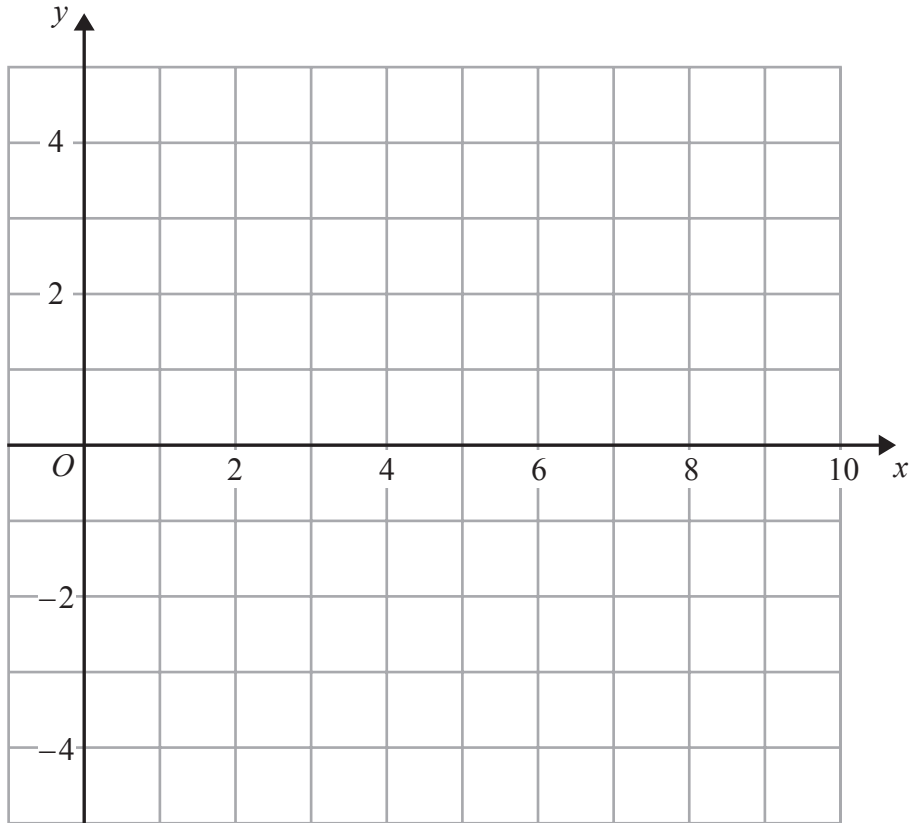
.....  
(1)

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(Total for Question 9 is 3 marks)



- 10 (a) On the grid, draw the line with equation  $x + 2y = 8$  for values of  $x$  from 0 to 9



(2)

- (b) Show, by shading on the grid, the region defined by all three inequalities

$$x + 2y \leq 8$$

$$x \geq 2$$

$$y \geq 1$$

Label your region **R**.

(3)

(Total for Question 10 is 5 marks)

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11 (a) Complete the table to show each number written correct to 1 significant figure.

<b>Number</b>	42.37	58.92	21.04
<b>Number written correct to 1 significant figure</b>			

(2)

(b) Use the approximations in part (a) to work out an estimate for the value of

$$\frac{42.37 + 58.92}{21.04}$$

Show clearly how you obtain your answer.

.....  
(2)

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(Total for Question 11 is 4 marks)

12  $\mathcal{E} = \{1, 2, 3, 4, 5, 6, 7, 8, 9\}$   
 $A = \{1, 3, 5, 7\}$   
 $B = \{2, 4, 6, 8\}$

(a) Explain why  $A \cap B = \emptyset$

.....  
.....  
(1)

$x \in \mathcal{E}$  and  $x \notin A \cup B$

(b) Write down the value of  $x$ .

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

$A \cap C = \{3, 7\}$ ,  $B \cap C = \{8\}$  and  $A \cup B \cup C = \mathcal{E}$

(c) List all the members of  $C$ .

.....  
(2)

(Total for Question 12 is 4 marks)