

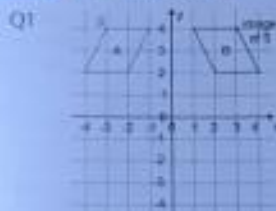
# Answers

- Q4 The triangles are both 4 units high and 4 units wide. Point B has an x-coordinate of  $4 + 4 = 8$  and a y-coordinate of  $4 + 4 = 8$ . So point B has coordinates **(8, 8)** (1 mark).  
Point C is on the same horizontal line as (4, 4) so its y-coordinate is 4. It is on the same vertical line as (8, 8), so its x-coordinate is 8. So point C has coordinates **(8, 4)** (1 mark).

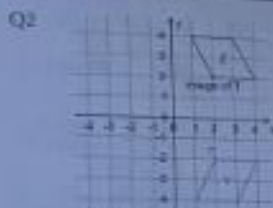
- Q5 Point D must have the same x-coordinate as the opposite triangle, so its x-coordinate is 7. The height of the opposite triangle is  $10 - 3 = 7$ . As the two triangles are the same height point D must have a y-coordinate of  $3 - 7 = -4$ . So point D has coordinates **(7, -4)** (1 mark).

- Q6 Point Z is on the same horizontal line as (21, 18), so its y-coordinate is 18. As it's a parallelogram the top side is the same length as the bottom side. The length of the bottom side is  $15 - 6 = 9$ . So the x-coordinate of the top side is  $21 - 9 = 12$ . Point Z has coordinates **(12, 18)** (1 mark).

## Page 68 — Reflection



(1 mark)  
**(3, 4)** (1 mark)



(1 mark)  
**(2, 2)** (1 mark)

- Q3 **the x-axis** (1 mark)

## Page 69 — Translation



(1 mark)  
**(-4, 2)** (1 mark)

- Q2  $(1 + 6, 1 - 3) = (7, -2)$   
(1 mark)

- Q3 The coordinates of vertex Q are (4, 4). So (a, b) = (4, 4). The coordinates of the translated Vertex Q are (a - 2, b - 1), which is (4 - 2, 4 - 1). So the coordinates of the translated Vertex P are **(2, 3)** (1 mark).

## Section Eight — Statistics

### Pages 70-71 — Pie Charts

- Q1  $\frac{1}{4}$  of all children walk.  
 $40 \div 4 = 10$  children  
(1 mark)  
 $\frac{1}{8}$  of all children go by train.  $40 \div 8 = 5$  children  
(1 mark)  
 $\frac{3}{8}$  of all children go by car.  $40 \div 8 = 5$ ,  
 $5 \times 3 = 15$  children  
(1 mark)

- Q2  $3 \times 2 = 6$  people (1 mark)  
 $45^\circ$  (1 mark)

- Q3 Crime = 20 out of 80 =  $\frac{1}{4}$   
Fantasy = 10 out of 80 =  $\frac{1}{8}$   
Sci-Fi = 10 out of 80 =  $\frac{1}{8}$   
Adventure = 40 out of 80 =  $\frac{1}{2}$



(1 mark)

- Q4 The science section of the pie chart is  $\frac{1}{8}$  of the circle.

So 8 hours  $\div 8 = 1$  hour  
(1 mark)

Maths is  $\frac{3}{8}$  of the circle.  
 $\frac{3}{8}$  of 8 = 3 hours (1 mark)

- Q5 Multiplier =  $360^\circ \div 36 = 10$

Angles:  
Blonde =  $12 \times 10 = 120^\circ$   
Brown =  $15 \times 10 = 150^\circ$   
Red =  $3 \times 10 = 30^\circ$   
Black =  $4 \times 10 = 40^\circ$   
Grey =  $2 \times 10 = 20^\circ$



(1 mark for calculating all angles correctly. 1 mark for drawing pie chart accurately.)

- Q6 Blue:  $30^\circ$ , so  
 $\frac{30}{360} = \frac{1}{12} = \frac{1}{12}$   
 $\frac{1}{12}$  of 36 = 3 students