# 8.5 Geometry: Symmetry, Coordinates and Translation: 10-minute Pack

Calculators not allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

**Answer ALL questions. Show all your working.**

**1** How many lines of symmetry does a regular pentagon have? Write the number.

**(1)**

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**2** Point P is at (8, 4). It moves 2 units left and 2 units down.

What are the coordinates of the new point?

Answer: (___, ___)

**(2)**

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**3** A right angle is split into two angles. One of them is 75 degrees.

What is the other?

Answer: ___ degrees

**(1)**


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**4** Four angles meet at a point and add up to 360 degrees. Three of the angles are 81, 89 and 45 degrees.

What is the fourth angle?

Answer: ___ degrees

**(2)**

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**5** Here is a shape on a grid with a line of symmetry along the vertical line x = 2.5. One vertex of the shape is at (4, 1). Explain why there must be a matching vertex at (1, 1). Your answer should refer to distances from the line x = 2.5.

**(3)**


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# Mark scheme · 8.5 Geometry: Symmetry, Coordinates and Translation: 10-minute Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

## Question 1

| | |
|---|---|
| 5 cao | **B1** |

Answer: **5**

## Question 2

| | |
|---|---|
| one coordinate correct | **M1** |
| (6, 2) cao | **A1** |

Answer: **(6, 2)**

## Question 3

| | |
|---|---|
| 15 degrees cao | **B1** |

Answer: **15 degrees**

## Question 4

| | |
|---|---|
| 215 seen | **M1** |
| 145 degrees cao | **A1** |

Answer: **145 degrees**

## Question 5

| | |
|---|---|
| States distance from line for given vertex, e.g. 4 is 1.5 to the right of x = 2.5 | **M1** |
| States matching point must be same distance on other side, e.g. 1.5 to the left | **M1** |
| Concludes matching vertex at (1, 1) cao | **B1** |

Answer: **4 is 1.5 to the right of x = 2.5 so there must be a point 1.5 to the left at (1, 1)**


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