8.9 Geometry: Coordinates and Transformations: 10-minute Pack

Calculators not allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Shape A is a square with corners at (-1, -1), (1, -1), (1, 1) and (-1, 1). Shape B is the image of shape A after a reflection in the y-axis. Explain your answer by giving the coordinates of shape B and stating the rule for the reflection.

(2)

2 Three angles in a quadrilateral are 76, 58 and 84 degrees.

What is the fourth angle?

Answer: ___ degrees

(2)

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3 A shape has vertices A(4, 2), B(1, 2), C(2, 4). It is translated 2 units up.

Write the coordinates of the translated vertices in the same order.

Answer: ___

(2)

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4 Find the midpoint of the line joining K(-6, 4) and L(2, -2).

(2)

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Mark scheme · 8.9 Geometry: Coordinates and Transformations: 10-minute Pack

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

Question 1

Give coordinates after reflection in y-axis for at least two corners or state x changes sign	**M1**
Full set (-1,-1)->(1,-1), (1,-1)->(-1,-1), (1,1)->(-1,1), (-1,1)->(1,1) and rule x becomes -x cao	**B1**

Answer: **B corners (1, -1), (-1, -1), (-1, 1), (1, 1); rule: (x, y) -> (-x, y) for reflection in the y-axis**

Question 2

218 seen	**M1**
142 degrees cao	**A1**

Answer: **142 degrees**

Question 3

two vertices correct	**M1**
(4, 4), (1, 4), (2, 6) cao	**A1**

Answer: **(4, 4), (1, 4), (2, 6)**

Question 4

Find midpoint x as (-6 + 2)/2 = -2 and y as (4 + -2)/2 = 1	**M1**
(-2, 1) cao	**B1**

Answer: **(-2, 1)**

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