Practice worksheet | Transformations

Recording transformations with coordinates

Name: _____ Date: _____

6 questions | 12 marks

1. Complete the images of $A(-1, 2)$ and $B(2, -2)$ under $(x, y) \mapsto (x + 2, y - 1)$. [2 marks]

2. $P(-3, 1)$ maps to $(1, -2)$ and $Q(-1, 4)$ maps to $(3, 1)$. Find the common translation. [2 marks]

3. A translation maps a point to $(2, 5)$ by moving 1 left and 3 up. Find the original. [2 marks]

4. Which coordinate-axis reflection maps $(3,\ -2)$ to $(-3,\ -2)$ and $(-1, 4)$ to $(1, 4)$? [2 marks]

5. Use $(x, y) \mapsto (-y, x)$ to find the image of $(4, 1)$. Name the turn. [2 marks]

6. One proposed translation maps $A(0, 1)$ to $(2, 4)$ and $B(2, 1)$ to $(4, 5)$. Explain why the record contains a mistake. [2 marks]