

G.G.54: Reflections 1: Define, investigate, justify, and apply isometries in the plane (rotations, reflections, translations, glide reflections)

- 1 Point A is located at $(4, -7)$. The point is reflected in the x -axis. Its image is located at
 - 1) $(-4, 7)$
 - 2) $(-4, -7)$
 - 3) $(4, 7)$
 - 4) $(7, -4)$

- 2 When the point $(2, -5)$ is reflected in the x -axis, what are the coordinates of its image?
 - 1) $(-5, 2)$
 - 2) $(-2, 5)$
 - 3) $(2, 5)$
 - 4) $(5, 2)$

- 3 What is the image of point $(-3, 7)$ after a reflection in the x -axis?
 - 1) $(3, 7)$
 - 2) $(-3, -7)$
 - 3) $(3, -7)$
 - 4) $(7, -3)$

- 4 What are the coordinates of point $(2, -3)$ after it is reflected over the x -axis?
 - 1) $(2, 3)$
 - 2) $(-2, 3)$
 - 3) $(-2, -3)$
 - 4) $(-3, 2)$

- 5 Point $(-2, 3)$ is reflected in the x -axis. In which quadrant does its image lie?
 - 1) I
 - 2) II
 - 3) III
 - 4) IV

- 6 Reflecting $(5, 1)$ in the y -axis yields an image of
 - 1) $(5, -1)$
 - 2) $(-5, -1)$
 - 3) $(5, 1)$
 - 4) $(-5, 1)$

- 7 The image of point $(3, 4)$ when reflected in the y -axis is
 - 1) $(-3, -4)$
 - 2) $(-3, 4)$
 - 3) $(3, -4)$
 - 4) $(4, 3)$

- 8 What is the image of the point $(2, -3)$ after the transformation $r_{y\text{-axis}}$?
 - 1) $(2, 3)$
 - 2) $(-2, -3)$
 - 3) $(-2, 3)$
 - 4) $(-3, 2)$

- 9 What are the coordinates of point P , the image of point $(3, -4)$ after a reflection in the line $y = x$?
 - 1) $(3, 4)$
 - 2) $(-3, 4)$
 - 3) $(4, -3)$
 - 4) $(-4, 3)$

- 10 What is the image of $(5, -2)$ under the transformation $r_{y=x}$?
 - 1) $(-5, 2)$
 - 2) $(5, 2)$
 - 3) $(2, 5)$
 - 4) $(-2, 5)$