Answer Key · Lesson 7.2: Reflections and Symmetry

School Launch · Geometry · Unit 7 · Worksheet A · for the parent

Key

1. $(3, 2), (1, -3)$

Reflect $(-3, 2), (-1, -3)$ across the y-axis.

2. $(-3, 4), (-5, -1)$

Reflect $(-3, -4), (-5, 1)$ across the x-axis.

3. $(6, -6), (1, 3)$

Reflect $(6, 6), (1, -3)$ across the x-axis.

4. $(-4, 2), (3, -2), (1, 3)$

1. Rule: $(x, y) \to (y, x)$
2. $(2, -4) \to (-4, 2), (-2, 3) \to (3, -2), (3, 1) \to (1, 3)$

Reflect $(2, -4), (-2, 3), (3, 1)$ across $y = x$.

5. $(-3, -3), (5, 6), (1, 4)$

1. Rule: $(x, y) \to (-y, -x)$
2. $(3, 3) \to (-3, -3), (-6, -5) \to (5, 6), (-4, -1) \to (1, 4)$

Reflect $(3, 3), (-6, -5), (-4, -1)$ across $y = -x$.

6. $(1, -6), (-5, 3), (3, 3)$

1. Rule: $(x, y) \to (x, -y)$
2. $(1, 6) \to (1, -6), (-5, -3) \to (-5, 3), (3, -3) \to (3, 3)$

Reflect $(1, 6), (-5, -3), (3, -3)$ across the x-axis.

7. $(-1, -1), (6, -6), (3, 0)$

1. Rule: $(x, y) \to (-x, y)$
2. $(1, -1) \to (-1, -1), (-6, -6) \to (6, -6), (-3, 0) \to (3, 0)$

Reflect $(1, -1), (-6, -6), (-3, 0)$ across the y-axis.

8. $(5, 4), (3, 3), (0, 4)$

1. Rule: $(x, y) \to (-y, -x)$
2. $(-4, -5) \to (5, 4), (-3, -3) \to (3, 3), (-4, 0) \to (0, 4)$

Reflect $(-4, -5), (-3, -3), (-4, 0)$ across $y = -x$.

9. $(2, 5), (2, -1), (4, 4)$

1. Rule: $(x, y) \to (x, -y)$
2. $(2, -5) \to (2, 5), (2, 1) \to (2, -1), (4, -4) \to (4, 4)$

Reflect $(2, -5), (2, 1), (4, -4)$ across the x-axis.

10. $(-1, -6), (6, 2), (-5, -6)$

1. Rule: $(x, y) \to (y, x)$
2. $(-6, -1) \to (-1, -6), (2, 6) \to (6, 2), (-6, -5) \to (-5, -6)$

Reflect $(-6, -1), (2, 6), (-6, -5)$ across $y = x$.