

Lesson 7-5 • Apply Day

Reinforce Understanding

Reflecting Points Across the Axes

I can plot and identify points on the coordinate plane using ordered pairs.

Worked model

Point R sits at $(3.25, -5.5)$. Find the reflection of R across the x-axis and across the y-axis.

1. A reflection across the x-axis keeps x the same and flips the sign of y.
2. Across the x-axis: $(3.25, -5.5) \rightarrow (3.25, 5.5)$
3. A reflection across the y-axis keeps y the same and flips the sign of x.
4. Across the y-axis: $(3.25, -5.5) \rightarrow (-3.25, -5.5)$

Answer: Across the x-axis R lands at $(3.25, 5.5)$; across the y-axis it lands at $(-3.25, -5.5)$.

Practice

Complete each exercise. Show the reasoning that supports your answer.

1. Plot and name the quadrant for the new point $(1, -1)$.

Complete each step, then write the final answer.

1. Move horizontally to $x = \underline{\hspace{1cm}}$.
2. Move vertically to $y = \underline{\hspace{1cm}}$.
3. Name the quadrant: $\underline{\hspace{1cm}}$.

Answer: $\underline{\hspace{4cm}}$

2. Plot and name the quadrant for the new point $(-2, 3)$.

Complete each step, then write the final answer.

1. Move horizontally to $x = \underline{\hspace{1cm}}$.
2. Move vertically to $y = \underline{\hspace{1cm}}$.
3. Name the quadrant: $\underline{\hspace{1cm}}$.

Answer: $\underline{\hspace{4cm}}$

3. Plot and name the quadrant for the new point $(3, 5)$.

Complete each step, then write the final answer.

1. Move horizontally to $x = \underline{\hspace{1cm}}$.
2. Move vertically to $y = \underline{\hspace{1cm}}$.
3. Name the quadrant: $\underline{\hspace{1cm}}$.

Answer: $\underline{\hspace{4cm}}$