



Drawing polygons in the coordinate plane

GRADE 6 MATH

Name _____

Date _____

Work in order on grid paper. Label every point you plot with its ordered pair; final answers in the boxes.
One skill: **polygons in the coordinate plane**.

WORKED EXAMPLE

(x, y) — **across, then up or down**. Quadrant I is $(+, +)$, II is $(-, +)$, III is $(-, -)$, IV is $(+, -)$. A point with a zero coordinate sits **on an axis** and is in no quadrant. Connect polygon vertices in the order listed, then back to the first.

1. Plot $(2, 7)$ and name its quadrant.

FLUENCY

Show your thinking

Answer

2. Plot $(-5, 3)$ and name its quadrant.

FLUENCY

Show your thinking

Answer

3. Plot $(-2, -6)$ and name its quadrant.

FLUENCY

Show your thinking

Answer

4. Plot $(4, -1)$ and name its quadrant.

APPLICATION

Show your thinking

Answer

5. Draw the square with vertices $(2, 2)$, $(7, 2)$, $(7, 7)$ and $(2, 7)$. What is the length of one side?

APPLICATION

Show your thinking

Answer

6. Draw the triangle with vertices $(0, 0)$, $(6, 0)$ and $(3, 5)$. What kind of triangle does it look like?

APPLICATION

Show your thinking

Answer

7. Three vertices of a rectangle are $(-1, -2)$, $(4, -2)$ and $(4, 4)$. Find the fourth vertex and explain how you knew.

REASONING

Show your thinking

Answer

8. Plot $(0, -4)$. Which quadrant is it in? Explain your answer carefully.

REASONING

Show your thinking

Answer

9. Plot $(3, -3)$ and $(-3, 3)$. Are they the same point? Explain what changes when the signs swap.

REASONING

Show your thinking

Answer