

# Coordinate Zone Quest

Use ordered pairs to find each point's location.

**GRADE 6 • 6.MG.3.b**

**6.MG.3.b** "Identify and describe the location (quadrant or the axis) of a point given as an ordered pair. Ordered pairs will be limited to coordinates expressed as integers."

NAME \_\_\_\_\_

DATE \_\_\_\_\_

## FIND THE LOCATION

Read the x-coordinate first, then the y-coordinate. Points with two nonzero coordinates are in a quadrant:  $(+, +)$  is Quadrant I,  $(-, +)$  is Quadrant II,  $(-, -)$  is Quadrant III, and  $(+, -)$  is Quadrant IV. If  $x = 0$ , the point is on the y-axis. If  $y = 0$ , the point is on the x-axis.

## WORKED EXAMPLE

Identify the location of  $(8, -7)$ .

1. The x-coordinate, 8, is positive.
2. The y-coordinate, -7, is negative.
3. A point with  $(+, -)$  is in Quadrant IV.

**Answer: Quadrant IV**

## PRACTICE 6 problems

**1** Identify the location of  $(-6, 5)$ .

**ANSWER** \_\_\_\_\_

**2** Identify the location of  $(0, -8)$ .

**ANSWER** \_\_\_\_\_

**3** Identify the location of  $(7, 3)$ .

**ANSWER** \_\_\_\_\_

**4** Identify the location of  $(-4, -9)$ .

**ANSWER** \_\_\_\_\_

**5** Identify the location of  $(11, 0)$ .

**ANSWER** \_\_\_\_\_

**6** Identify the location of  $(2, -10)$ .

**ANSWER** \_\_\_\_\_

## APPLY IT Show your work

- 1** In a video game, a treasure chest is at  $(6, -4)$  on the map. What quadrant contains the treasure chest?

WORK SPACE

ANSWER \_\_\_\_\_

- 2** A skate park planner marks a new ramp at  $(-5, 7)$  on a coordinate map. What quadrant contains the ramp?

WORK SPACE

ANSWER \_\_\_\_\_

## CHALLENGE One step up

### CHALLENGE

Mina says that  $(-3, 0)$  is in Quadrant II because its x-coordinate is negative. Is Mina correct? Explain your reasoning.

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**PART 1 • PRACTICE**

| # | PROBLEM                               | ANSWER              |
|---|---------------------------------------|---------------------|
| 1 | Identify the location of $(-6, 5)$ .  | <b>Quadrant II</b>  |
| 2 | Identify the location of $(0, -8)$ .  | <b>y-axis</b>       |
| 3 | Identify the location of $(7, 3)$ .   | <b>Quadrant I</b>   |
| 4 | Identify the location of $(-4, -9)$ . | <b>Quadrant III</b> |
| 5 | Identify the location of $(11, 0)$ .  | <b>x-axis</b>       |
| 6 | Identify the location of $(2, -10)$ . | <b>Quadrant IV</b>  |

**PART 2 • APPLY IT**

1. **Quadrant IV** The x-coordinate is positive and the y-coordinate is negative. A point with  $(+, -)$  is in Quadrant IV.
2. **Quadrant II** The x-coordinate is negative and the y-coordinate is positive. A point with  $(-, +)$  is in Quadrant II.

**CHALLENGE**

**No. Mina is not correct because the y-coordinate is 0, so the point is on the x-axis, not in a quadrant.**

Accept "on the x-axis" or "x-axis," and accept "on the y-axis" or "y-axis." A point on an axis is not in any quadrant.