Name_____ Date_____ Period_____

LESSON 7-5 · SESSION 1 · PRACTICE · FORM A

Plotting Points on the Coordinate Plane

Learning target – I can plot a point with rational coordinates and name the quadrant it lies in. · 6.NS.C.6c

REMEMBER

- An **ordered pair** (x, y) names a point. Start at the **origin** (0, 0): x says right or left, then y says up or down.
- Signs name the **quadrant**: (+, +) I, (−, +) II, (−, −) III, (+, −) IV.
- A point with a 0 coordinate is **on an axis**, not in a quadrant.

WORKED EXAMPLE

Plot (−5, −4). Name its quadrant.

Step 1 Start at the origin, (0, 0).

Step 2 Move 5 units left, because x = −5.

Step 3 Move 4 units down, because y = −4.

Answer **(−, −) is Quadrant III**

WORDS **coordinate plane** *(plano de coordenadas)* · **ordered pair** *(par ordenado)* · **origin** *(origen)* · **quadrant** *(cuadrante)*

PRACTICE

show your work · label units

1. Name the quadrant or axis for each point.

a. (−1, 6) ____ **b.** (4, 4) ____ **c.** (−8, −5) ____

d. (3, −9) ____ **e.** (0, −5) ____ **f.** (8, 0) ____

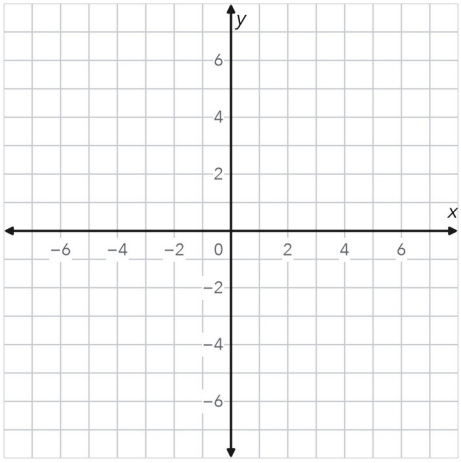
2. **Park Map.** The fountain is at the origin. Gate (6, 3), Pond (−4, 8), Bench (−7, −2), Swing Set (5, −6).

Hint *Move along the x-axis first.*

a. Plot and label all four spots.

b. Quadrant: Gate ___ Pond ___ Bench ___ Swing Set ___

c. Ordered pair for the fountain: _____



3. **Build the Pair.** A point is 6 units left of the y-axis and 11 units above the x-axis. Write its ordered pair and quadrant.

Hint *Left means x is negative.*

Point_____

4. **Order Matters.** Name the quadrant of (−5, 1) and of (1, −5). Are they the same point?

Hint *Check the sign of x, then the sign of y.*

Quadrants_____

5. Same Digits. Noor says (−2, 6) and (6, −2) name the same point because they use the same two numbers. Explain why she is wrong.

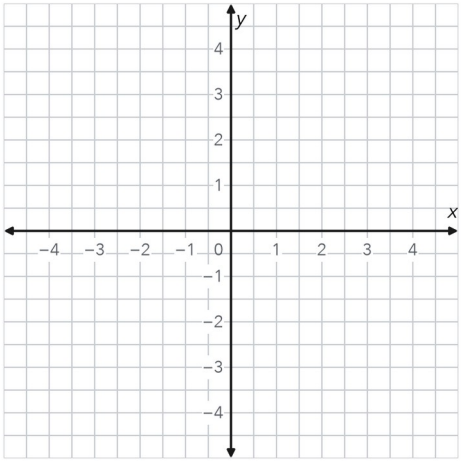
_____

_____

6. Rational Coordinates. Plot (−3.5, 2.5) and (4.5, −1.5). Name each quadrant.

Hint *Count 3 whole units, then half of the next.*

Quadrants_____



7. City Map. The library is at the origin. The museum is at (−4, −7). The stadium is at (9, 1).

a. Quadrant: museum ___ stadium ___

b. Ordered pair for the library: _____

8. Map Points. A map shows a school at (2.5, 3), a park at (−2.5, 3), and a pool at (−2.5, −3).

a. Name the quadrant of each place. _____

b. Which y-coordinate do two places share? _____

c. How many units straight down is the pool from the park? _____

FIND THE ERROR

explain the mistake, then fix it

9. Dmitri's Work. Dmitri plotted (−5, 4) by moving down 5 units and then right 4 units. His point landed in Quadrant IV. Explain his mistake. Then describe the correct moves and quadrant.

_____

_____

TEST PRACTICE

choose the best answer

10. The point (−4, 7) lies in –

A Quadrant I **B** Quadrant II **C** Quadrant III **D** Quadrant IV

11. In the ordered pair (x, y), the first number tells you to move –

A up or down

B right or left

C diagonally

D back to the origin

SELF-CHECK CODE *find your answer · copy its letter into that problem's box · spell a math word*

(0, 0) G	(11, −6) Q	(−6, 11) I	−3 X	(6, −11) Z	II O	6 N	3 I	y-axis R

#1a	#1e	#3	#7b	#8b	#8c

CHECK YOURSELF	☐ I can do this on my own	☐ I need a little help	☐ I have a question about #___