

Coordinate Quest

Read and locate rational-number points.

GRADE 6 • NY-6.NS.6.c

NY-6.NS.6.c "Find and position integers and other rational numbers on a horizontal or vertical number line. Find and position pairs of integers and other rational numbers on a coordinate plane."

NAME _____

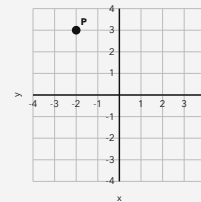
DATE _____

POINTS HAVE ADDRESSES

On a coordinate plane, read x first by moving left or right, then read y by moving up or down. Negative numbers are left of or below 0, and rational numbers can fall between whole numbers.

WORKED EXAMPLE

What ordered pair names point P?



1. Read left or right first.
2. P is 2 units left, so $x = -2$.
3. P is 3 units up, so $y = 3$.

Answer: $(-2, 3)$

PRACTICE 4 problems

- 1** A point is 5 units right and 1 unit down from the origin. Write its ordered pair.

ANSWER _____

- 2** Which rational number is halfway between -6 and -5?

ANSWER _____

- 3** A point has x -coordinate $-3/4$ and y -coordinate 4. Write its ordered pair.

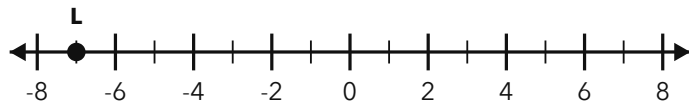
ANSWER _____

- 4** Point Q is at $(-1, 6)$. Is Q above or below the x -axis? How far is it from the x -axis?

ANSWER _____

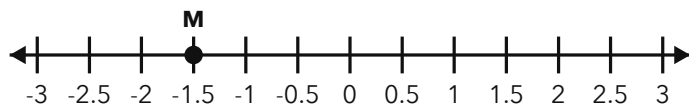
APPLY IT Show your work

- 1 During a gaming tournament, Lena's score change is shown by L. What is her score change?



ANSWER _____

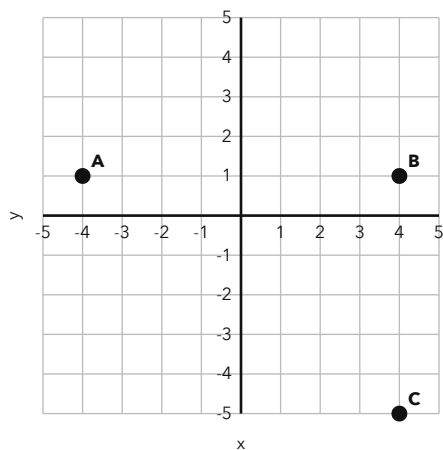
- 2 Maya edits a song. The beat marker M shows its time compared with the chorus at 0 seconds. What is the marker's time?



ANSWER _____

CHALLENGE One step up

A, B, and C are three consecutive vertices of rectangle ABCD. Find D. Explain how you know.



WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A point is 5 units right and 1 unit down from the origin. Write its ordered pair.	(5, -1)
2	Which rational number is halfway between -6 and -5?	-11/2
3	A point has x-coordinate $-3/4$ and y-coordinate 4. Write its ordered pair.	$(-3/4, 4)$
4	Point Q is at $(-1, 6)$. Is Q above or below the x-axis? How far is it from the x-axis?	above; 6 units

PART 2 • APPLY IT

1. **-7 points** L is at -7 on the number line, so Lena lost 7 points.
2. **-3/2 seconds** M is 1.5 units left of 0. Its time is -1.5 seconds, or $-3/2$ seconds.

CHALLENGE

D = $(-4, -5)$. It shares A's x-coordinate and C's y-coordinate.

Accept equivalent rational forms, including -5.5 for $-11/2$ and -1.5 for $-3/2$. Ordered pairs must list x-coordinate first, then y-coordinate.