LESSON MAKER PRO

Mirror Moves

Find points reflected across the y-axis.

GRADE 6 · 6.NS.C.11.c

6.NS.C.11.c "Identify (a,b) and (-a,b) as reflections across the y-axis."

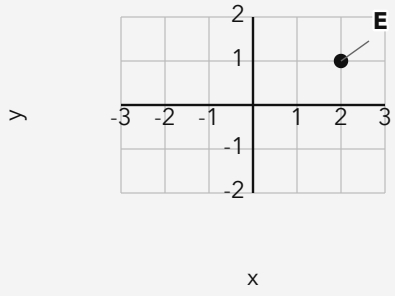
NAME _____ DATE _____

THE MIRROR RULE

The y-axis acts like a mirror. A point and its reflection have opposite x-coordinates and the same y-coordinate.

WORKED EXAMPLE

Find the reflection of E across the y-axis.



1. E is (2,1).
2. Change the x-coordinate from 2 to -2.
3. Keep the y-coordinate at 1.

Answer: (-2,1)

PRACTICE 4 problems

1 Reflect (4,-3) across the y-axis. What are the new coordinates?

ANSWER _____

2 A point left of the y-axis reflects to (5,4). What is the original point?

ANSWER _____

3 Are (6,0) and (-6,0) reflections across the y-axis?

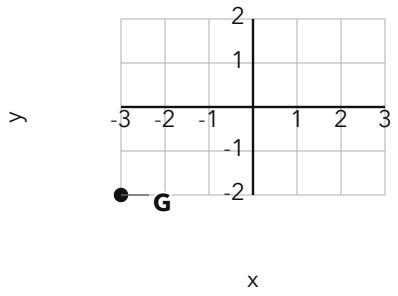
ANSWER _____

4 Reflect (-3,-3/4) across the y-axis. What are the new coordinates?

ANSWER _____

APPLY IT Show your work

1 A game portal mirrors G across the y-axis. Where does G appear?



ANSWER _____

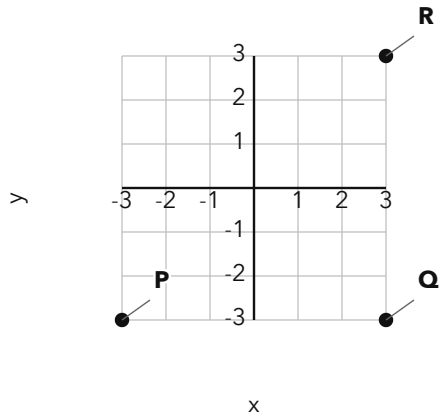
2 On a skate park map, a jump is at (-4,5). A matching jump is its reflection across the y-axis. Where is it?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Which point, Q or R, is P's reflection across the y-axis? Explain using both coordinates.



WORK SPACE AND ANSWER

ANSWER KEY

Mirror Moves

GRADE 6 · 6.NS.C.11.c

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Reflect (4,-3) across the y-axis. What are the new coordinates?	**(-4,-3)**
2	A point left of the y-axis reflects to (5,4). What is the original point?	**(-5,4)**
3	Are (6,0) and (-6,0) reflections across the y-axis?	**Yes**
4	Reflect (-3,-3/4) across the y-axis. What are the new coordinates?	**(3,-3/4)**

PART 2 · APPLY IT

1. **(3,-2)** G is at (-3,-2). Change the sign of the x-coordinate and keep the y-coordinate.
2. **(4,5)** Change -4 to 4 and keep 5 as the y-coordinate.

CHALLENGE

Q. P is (-3,-3) and Q is (3,-3), so their x-coordinates are opposites and their y-coordinates are the same.

For the challenge, accept any explanation that identifies Q and correctly compares both coordinates.