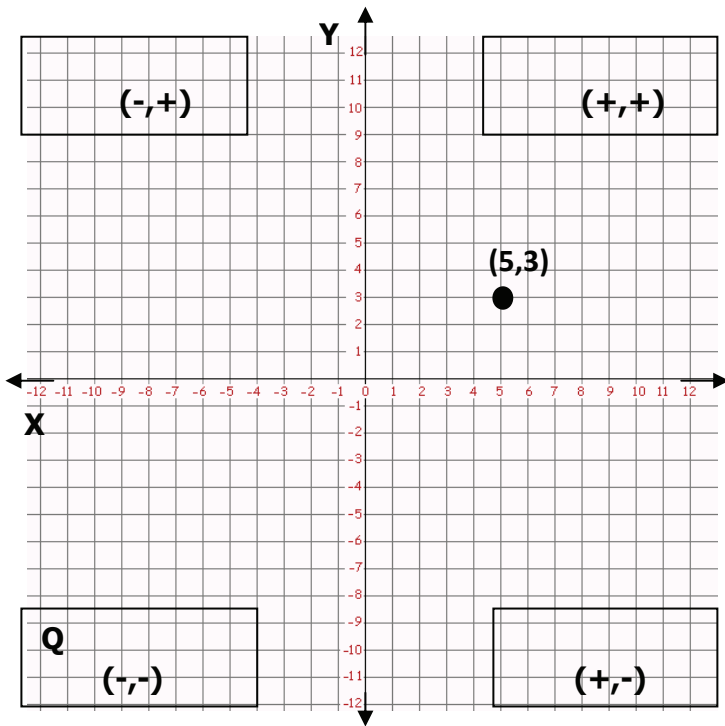


Points on a Coordinate Grid

Cross-Curricular Focus: Mathematics



Ordered pairs are used in math. An **ordered** pair of numbers is two related numbers written inside parentheses with a comma between the numbers. Each pair is the address for a point on a **coordinate** grid.

In the ordered pair (5, 3), the 5 tells how far to move side to side. This horizontal line is called the x-axis. The 3 tells how far to move up and down. This vertical line is the y-axis. You mark a little circle, called a **point**, where the x and y axes cross.

The coordinate grid has four different sections. Each section is called a **quadrant**. The numbers in the ordered pair can be positive or negative. The numbers tell you which of the four quadrants you will use. Elementary school students usually work in Quadrant I. Quadrant I has ordered pairs with positive numbers for both x and y. In Quadrant II, the x number is positive, but the y number is negative. In Quadrant III, both of the numbers are negative. In Quadrant IV, the x number is negative, and the y number is positive.

Ordered pairs of numbers are often used in algebra. Algebra is a special kind of math. In algebra, the ordered pairs are found by applying rules and patterns. They show how parts of one set are related to parts of another set. By plotting the points on the coordinate grid, you can make a visual picture of the pattern.

Name: _____

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) What do we call the address for a point on a coordinate grid?

2) What does the first number in the ordered pair tell you?

3) What does the second number in the ordered pair tell you? _____

4) What is one benefit of plotting data on the coordinate grid?

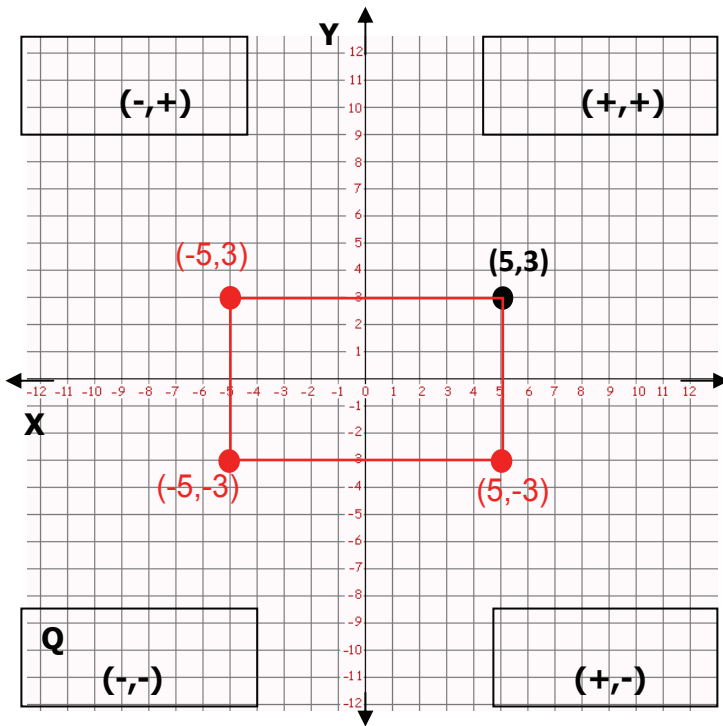
5) Plot the following points on the grid to the left:

(-5, 3) (-5, -3) (5, -3)

Connect all four points by drawing a line segment. What shape have you made?

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Name: Key

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

Actual wording of answers may vary.

1) What do we call the address for a point on a coordinate grid?

an ordered pair

2) What does the first number in the ordered pair tell you?

how far to move side to side or location on the x-axis

3) What does the second number in the ordered pair tell you? how far to move up and

down or location on the y-axis

4) What is one benefit of plotting data on the coordinate grid?

You can make a visual picture of the pattern

5) Plot the following points on the grid to the left:

(-5, 3) (-5, -3) (5, -3)

Connect all four points by drawing a line segment. What shape have you made?

a rectangle