Determine Distance on the Coordinate Plane

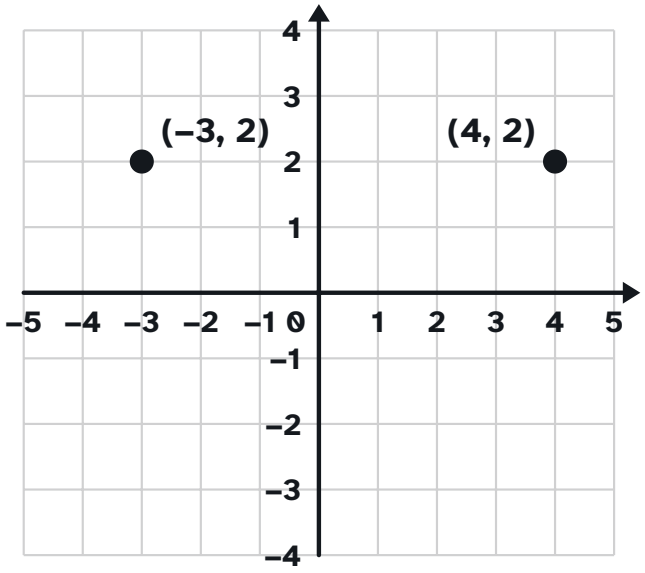
Find the distance between two points on the coordinate plane.

Name _____ **Date** _____

Tonight's spark

A city bus map uses a grid. Two stops sit on the same street: one at (–3, 2) and one at (4, 2). Each square is one block. How many blocks apart are the stops?

Guess first: are the stops more than 4 blocks apart, or fewer?



Our class model: same row or column, then add or subtract

Try it

Work it out on paper. Write one answer on each line.

1 **Which coordinates are the same in (2, 5) and (9, 5)?**

A. The x-coordinates **B.** The y-coordinates **C.** Both **D.** Neither

My answer _____

2 **Find the distance between (1, 3) and (6, 3).**

A. 5 **B.** 7 **C.** 18 **D.** 3

My answer _____

3 **What is |–4| + |3|?**

A. –1 **B.** 1 **C.** 7 **D.** 12

My answer _____

4 **Find the distance between (–2, 4) and (5, 4).**

A. 3 **B.** 5 **C.** 2 **D.** 7

My answer _____

5 **Find the distance between (6, –3) and (6, –9).**

A. 12 **B.** 6 **C.** –6 **D.** 3

My answer _____

6 **Find the distance between (4, –5) and (4, 3).**

A. 8 **B.** 2 **C.** 5 **D.** 3

My answer _____

Talk about it

Which coordinate is the same? Are the other coordinates on the same side of 0 or opposite sides?

Home mission

Pick one floor tile as (0, 0). Stand 3 tiles left of it. Have your student stand 4 tiles right of it, on the same row. Ask: how many tiles apart are you? Add or subtract? Why?

If we get stuck, ask

- Are the two points on the same side of zero, or opposite sides?
- How far is each number from zero? Let's find both absolute values.
- Do the points share a row or a column? That tells us which numbers to use.

Do it on a screen

Scan or type the link. Same lesson, with hints.

eduwonderlab.com/lessons/7-6/homework.html

How did it feel? (optional)

Tricky Getting there Got it