Distances on a Coordinate Plane

Jocelyn is going to plant carrots in rows. She is using a coordinate grid to help her arrange the rows.

How long is each row?

Compare the ordered pairs at each *end* of Row 1:

(2, **2**)
(8, **2**)

The *y*-values are the same, so you know the row is horizontal.

The *x*-values are different. You can subtract the *x*-values to find the length of the row.
$8 - 2 = 6$

The length of Row 1 is 6 units.

How far away is the first row from the third row?
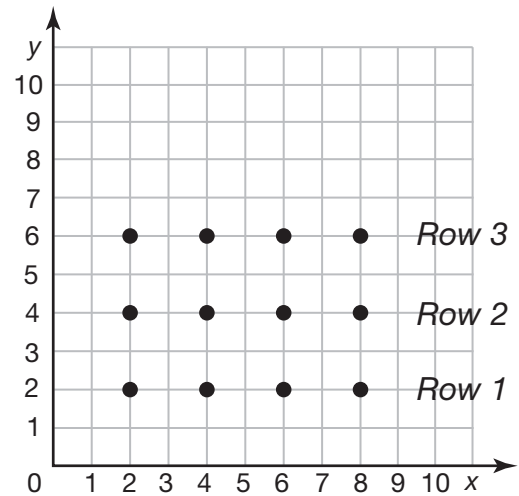
Compare the first ordered pairs from Rows 1 and 3: (**2**, 2)
(**2**, 6)

The *x*-values are the same, so you know the distance is vertical. To find the distance between the first and third rows, subtract the *y*-values.
$6 - 2 = 4$

The distance between the first row and the third row is 4 units.

Find the distance between the ordered pairs.

1. (2, 2), (8, 2) _____ units

2. (3, 4), (3, 9) _____ units

3. (8, 4), (1, 4) _____ units

4. (1, 9), (9, 9) _____ units

5. (6, 1), (6, 5) _____ units

6. (1, 9), (1, 1) _____ units

7. If the ordered pairs (1, 4) and (9, 4) are connected to make a line, is the line vertical or horizontal? _____

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For **1** through **12**, find the distance between the ordered pairs.
You can use grid paper to help.

1. (1, 7), (5, 7)   **2.** (3, 9), (3, 1)   **3.** (2, 6), (2, 0)   **4.** (12, 2), (1, 2)

_____   _____   _____   _____

5. (2, 7), (2, 8)   **6.** (1, 5), (5, 5)   **7.** (0, 1), (0, 3)   **8.** (15, 9), (4, 9)

_____   _____   _____   _____

9. (8, 4), (8, 8)   **10.** (7, 7), (7, 9)   **11.** (18, 7), (18, 13)   **12.** (16, 9), (16, 11)

_____   _____   _____   _____

13. On a map, a museum is located at (15, 17).
A library is located at (2, 17). How many units
away is the museum from the library?   _____

14. Matthew has two friends who live on the same block. On a map, Matthew's
house is located at (4, 2). Matthew's friend Josh lives at (4, 1). Their mutual
friend Kenny lives at (4, 8). Which friend lives farther from Matthew?

_____

15. On a map, a costume store is located at (18, 7). A general
store is located at (11, 7). How many units away is the costume
store from the general store?

A 6 units   **B** 7 units   **C** 8 units   **D** 9 units

16. On a map, John is standing at (11, 11). His friend Lucy is standing at (1, 11).
John took 10 steps to the right. Is he standing with Lucy now?

_____

_____