LESSON MAKER PRO

Coordinate Paths

Find lengths on a coordinate grid

GRADE 6 · 6.GM.A.25.b

6.GM.A.25.b "Use coordinates to find the length of a side between points having the same x-coordinate or the same y-coordinate."

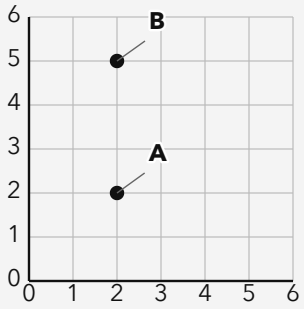
NAME _____ DATE _____

FIND THE DIFFERENCE

If two points have the same x-coordinate, find the positive difference between their y-coordinates. If they have the same y-coordinate, find the positive difference between their x-coordinates.

WORKED EXAMPLE

How long is AB?



1. The x-coordinates match, so use the y-coordinates.
2. 5 - 2 = 3.

Answer: 3 units

PRACTICE 4 problems

1 Find the distance between (-3, 4) and (-3, -4).

ANSWER _____

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

ANSWER _____

3 Find the distance between (7, 0) and (7, -4).

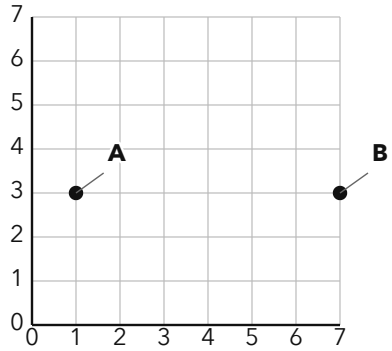
ANSWER _____

4 Find the distance between (-7, -3) and (-1, -3).

ANSWER _____

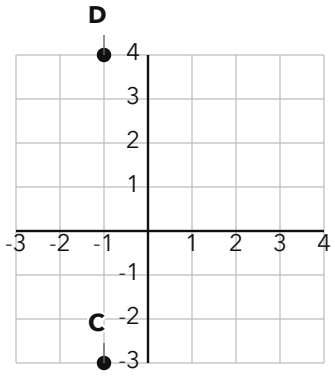
APPLY IT Show your work

1 On a game map, each grid unit is one step. How many steps is the straight path from A to B?



ANSWER _____

2 A mural plan uses one foot per grid unit. How long is the straight stripe from C to D?



ANSWER _____

CHALLENGE One step up

A rectangle has vertices (-4, -3), (3, -3), (3, 1), and (-4, 1). Find its perimeter. Show both side lengths.

WORK SPACE AND ANSWER

ANSWER KEY

Coordinate Paths

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find the distance between (-3, 4) and (-3, -4).	**8 units**
2	Find the distance between (-6, -1) and (3, -1).	**9 units**
3	Find the distance between (7, 0) and (7, -4).	**4 units**
4	Find the distance between (-7, -3) and (-1, -3).	**6 units**

PART 2 · APPLY IT

1. **6 steps** The points share a y-coordinate. Subtract the x-coordinates: 7 - 1 = 6.
2. **7 feet** The points share an x-coordinate. The positive difference between -3 and 4 is 7.

CHALLENGE

22 units. The side lengths are 7 units and 4 units, so 7 + 4 + 7 + 4 = 22.

Accept subtraction in either order when students use the positive difference. In the challenge, accept 2(7 + 4) for the perimeter calculation.