

Coordinate Distance Dash

Measure horizontal and vertical distances on a grid.

GRADE 6 • MA.6.GR.1.2

MA.6.GR.1.2 "Find distances between ordered pairs, limited to the same x-coordinate or the same y-coordinate, represented on the coordinate plane."

NAME _____

DATE _____

SAME LINE, EASY DISTANCE

If two points have the same y-coordinate, find the horizontal distance by subtracting the x-coordinates. If two points have the same x-coordinate, find the vertical distance by subtracting the y-coordinates, and always give a positive distance.

WORKED EXAMPLE

Find the distance between R(-15, 14) and S(14, 14).

1. The y-coordinates match, so the distance is horizontal.
2. Subtract the x-coordinates: $14 - (-15) = 29$.
3. The distance is positive.

Answer: 29 units

PRACTICE 6 problems

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

ANSWER _____

- 2** Find the distance between P(7, -3) and Q(7, 8).

ANSWER _____

- 3** Find the distance between A(-9, -1) and B(-9, 4).

ANSWER _____

- 4** Find the distance between C(-2, 10) and D(11, 10).

ANSWER _____

- 5** Find the distance between E(0, -7) and F(0, 9).

ANSWER _____

- 6** Find the distance between G(-11, -4) and H(5, -4).

ANSWER _____

APPLY IT Show your work

- 1** On a video game map, a player moves from checkpoint A(-8, -5) to checkpoint B(-8, 7). How many units does the player move?

WORK SPACE

ANSWER _____

- 2** At a school festival, two snack booths are located at (6, -12) and (-7, -12). How far apart are the booths?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A robot travels from P(-12, 11) to Q(4, 11), then from Q(4, 11) to R(-5, 11). How far does the robot travel altogether? Show how you found each part of the trip.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Find the distance between M(-6, 2) and N(3, 2).	9 units
2	Find the distance between P(7, -3) and Q(7, 8).	11 units
3	Find the distance between A(-9, -1) and B(-9, 4).	5 units
4	Find the distance between C(-2, 10) and D(11, 10).	13 units
5	Find the distance between E(0, -7) and F(0, 9).	16 units
6	Find the distance between G(-11, -4) and H(5, -4).	16 units

PART 2 • APPLY IT

- 12 units** The x-coordinate stays at -8, so find the difference between the y-coordinates. The distance is $7 - (-5) = 12$ units.
- 13 units** The y-coordinate stays at -12, so find the difference between the x-coordinates. The distance is $6 - (-7) = 13$ units.

CHALLENGE

25 units, because P to Q is 16 units and Q to R is 9 units.

Accept correct positive distances labeled in units. Students may subtract in either order if they use an absolute value or otherwise give the positive difference.