



GRADE 6 • THE NUMBER SYSTEM • PRACTICE

DISTANCE ON THE COORDINATE PLANE

Today's goal: I can use coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.

**Pick your peppers!**

Everyone does Mild & Medium. Then climb as high as you can.

**Mild**

Tan the Turtle

**Medium**

Digit the Fox

**Spicy**

Blaze the Dragon

**Extra Spicy**

Pi the Owl

WATCH MR DJ SOLVE

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

1 $|4 - (-3)| = |4 + 3| = 7$.

Answer: **7 units**



REMEMBER Two points sharing a coordinate lie on a straight line. Subtract the coordinates that DIFFER and take the absolute value: from $(-8, 0)$ to $(-1, 0)$, distance = $|-1 - (-8)| = |7| = 7$ units. Check by counting along the line.

**MILD****Tan the Turtle:** Slow and steady. Warm up!

1 Find the distance between $(1, 4)$ and $(1, 9)$.

Answer

2 Find the distance between $(5, 2)$ and $(11, 2)$.

Answer

**OOPS ALERT**

Careful on #1! The slip Mr DJ sees most: Subtracted the x-values and answered 0.

**MEDIUM****Digit the Fox:** Stretch your brain.

- 3 Find the distance between $(-8, 0)$ and $(-1, 0)$.

Answer

- 4 Find the distance between $(6, -5)$ and $(6, 3)$.

Answer

- 5 Find the distance between $(-2, -9)$ and $(-2, -4)$.

Answer

**SPICY****Blaze the Dragon:** Bring the heat!

- 6 Find the distance from $(2, 5)$ to $(9, 5)$, then from $(9, 5)$ to $(2, 5)$. Explain why both give the same answer.

Answer

- 7 A rectangle has corners $(-3, -2)$, $(5, -2)$, $(5, 4)$ and $(-3, 4)$. Find the length of each side and the perimeter.

Answer

**EXTRA SPICY****Pi the Owl:** Big-brain challenge.

- 8 On a city grid, the museum is at $(-6, 3)$ and the stadium is at $(9, 3)$. Each unit is one block. How many blocks apart are they? Explain why you cannot just add 6 and 9 without thinking about it.

Answer

**How did this sheet feel?**

Easy for me



Just right



Made me think

Stuck? Watch Mr DJ explain it

“Coordinate Plane Explained: Plotting Points and Quadrants”
on YouTube: [youtube.com/@MathWithMrDJ](https://www.youtube.com/@MathWithMrDJ)

Brain break: daily puzzles

Three new math puzzles every day, free:
puzzles.mathwithmrdj.com