

Understanding the Coordinate Plane

Grade 5 Math • Section 10.1

Name: _____

Date: _____

Score: _____ / 14

Quick Review and Helpful Hints

Coordinate plane: Two perpendicular number lines called **axes**. Horizontal: x -axis. Vertical: y -axis. They meet at the **origin** $(0, 0)$.

Ordered pair (x, y) : The first number tells how far to go **right** (along x); the second tells how far to go **up** (along y).

In Grade 5, we work in the **first quadrant** (both coordinates ≥ 0).

Example: Plot and name the point $(3, 5)$.

Start at the origin. Move 3 units to the right along the x -axis. Then move 5 units up. Mark the point. This is $(3, 5)$. The x -coordinate is 3 and the y -coordinate is 5.

Answer: Right 3, up 5

Practice Problems

Write the ordered pair for each description, or describe the location.

- Right 4, up 2: _____
- Right 0, up 7: _____
- Right 6, up 0: _____
- Right 5, up 5: _____
- $(2, 8)$: go right _____, up _____
- $(0, 0)$ is called the _____
- $(7, 3)$: the x -coordinate is _____
- $(1, 9)$: the y -coordinate is _____
- Right 10, up 4: _____
- $(3, 6)$ and $(6, 3)$: Are these the same point? _____
- A point is on the x -axis at 8. Ordered pair: _____
- A point is on the y -axis at 5. Ordered pair: _____

Word Problems

- On a map, a school is at $(2, 3)$ and a library is at $(2, 7)$. Describe how to get from the school to the library. How many units apart are they? _____
- Sara says $(4, 5)$ and $(5, 4)$ are the same point because they use the same numbers. Is she correct? Explain. _____



Answer Keys

- | | |
|-----------|-------------------|
| 1. (4, 2) | 8. 9 |
| 2. (0, 7) | 9. (10, 4) |
| 3. (6, 0) | 10. No |
| 4. (5, 5) | 11. (8, 0) |
| 5. 2, 8 | 12. (0, 5) |
| 6. origin | 13. up 4 units; 4 |
| 7. 7 | 14. No |

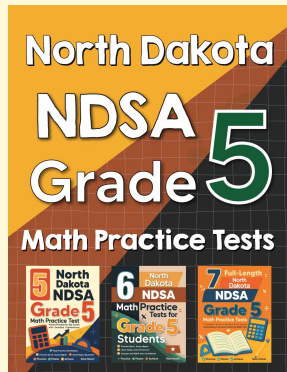
Step-by-Step Explanations

- Start with the main idea. For the coordinate plane, right gives the x -coordinate and up gives the y -coordinate. The first coordinate tells how far to move right, and the second tells how far to move up.
- Keep the work tidy. For the coordinate plane, no movement right means $x = 0$; up 7 means $y = 7$. Switching the coordinates usually changes the point, so order matters.
- Look at what the numbers mean. For the coordinate plane, right 6 and up 0 gives (6, 0). A table of ordered pairs makes a graphing pattern much easier to follow.
- Use the setup first. For the coordinate plane, right 5 and up 5 gives (5, 5). The first coordinate tells how far to move right, and the second tells how far to move up.
- Check the size of the answer. For the coordinate plane, in (2, 8), $x = 2$ and $y = 8$. Switching the coordinates usually changes the point, so order matters.
- Match the operation to the words. For the coordinate plane, the point (0, 0) is the origin. A table of ordered pairs makes a graphing pattern much easier to follow.
- Write the important values first. For the coordinate plane, the first coordinate is the x -coordinate. The first coordinate tells how far to move right, and the second tells how far to move up.
- Follow the pattern carefully. For the coordinate plane, the second coordinate is the y -coordinate. Switching the coordinates usually changes the point, so order matters.
- Start with the main idea. For the coordinate plane, right 10 and up 4 gives (10, 4). A table of ordered pairs makes a graphing pattern much easier to follow.
- Keep the work tidy. For the coordinate plane, the order matters; (3, 6) and (6, 3) are different points. The first coordinate tells how far to move right, and the second tells how far to move up.
- Look at what the numbers mean. For the coordinate plane, a point on the x -axis has $y = 0$. Switching the coordinates usually changes the point, so order matters.
- Use the setup first. For the coordinate plane, a point on the y -axis has $x = 0$. A table of ordered pairs makes a graphing pattern much easier to follow.
- Check the size of the answer. For the coordinate plane, the x -coordinate stays 2 and y changes from 3 to 7. The first coordinate tells how far to move right, and the second tells how far to move up.
- Match the operation to the words. For the coordinate plane, the first number tells right-left position and the second tells up-down position, so (4, 5) and (5, 4) differ. Switching the coordinates usually changes the point, so order matters.



Want Even More Practice?

Check Out Our Other North Dakota NDSA Test Books!



North Dakota NDSA Grade 5 Math Preparation Bundle

18 full-length practice tests across three books
(5 + 6 + 7)

No repeated questions—maximum practice value!



18 Tests!
3 Books
One Bundle

Important: All our test books contain **unique, completely different tests** from each other! Each book offers fresh practice questions—no repeats!

5 Practice Tests

- ✓ 5 complete practice tests with detailed explanations
- ✓ Perfect foundation for NDSA test preparation
- ✓ Builds confidence and test-taking skills
- ✓ High-quality questions aligned with state standards

Start your practice journey!

6 Practice Tests

- ✓ 6 complete practice tests with detailed explanations
- ✓ **Unique tests**—different from the 5 tests book
- ✓ Perfect for more practice after mastering 5 tests
- ✓ Builds even more confidence and test-taking skills
- ✓ Same high-quality questions aligned with standards

Take your practice to the next level!

7 Practice Tests

- ✓ 7 complete practice tests for maximum preparation
- ✓ **Unique tests**—different from 5 and 6 tests books
- ✓ The most comprehensive practice for Grade 5
- ✓ Ideal for students aiming for top scores
- ✓ Extensive practice builds mastery and confidence

Go all the way with comprehensive practice!