

Grade 6 • Unit 7 Worksheet

Rational Numbers

Name: _____

Date: _____

Part A • Negative Numbers

Negative numbers represent quantities that go below zero — temperature, elevation, debt.

1. Order each set of rational numbers from LEAST to GREATEST.

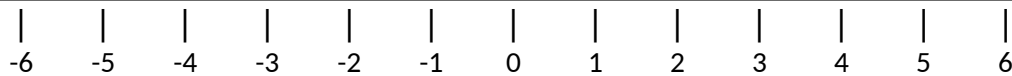
a. $-5, 3, -1, 0, -7, 4$ →

b. $-1.5, -1/2, 0.75, -1, 1/4$ →

2. Plot each number on the number line below and label it.

Numbers to plot: $-5, -2.5, 3.5, -4, 1.5, 0$

Which two numbers are opposites of each other from your list? _____ and _____



Part B • Absolute Value

3. Evaluate.

a. $|-8| =$ _____

b. $|3.5| =$ _____

c. $|-2/3| =$ _____

d. $|0| =$ _____

4. Decide whether each statement is TRUE or FALSE. Explain.

a. $-5 > -3$. ☐ T ☐ F. Why?

b. $|-5| > |-3|$. ☐ T ☐ F. Why?

c. A larger absolute value means a larger number. ☐ T ☐ F. Explain:

Part C • Inequalities

5. Write each statement as an inequality.

- a. Maya has more than \$15. Let m = amount Maya has. _____
- b. The water level is at most 4 feet. Let w = water level. _____
- c. The temperature is below -3°C . Let T = temperature. _____

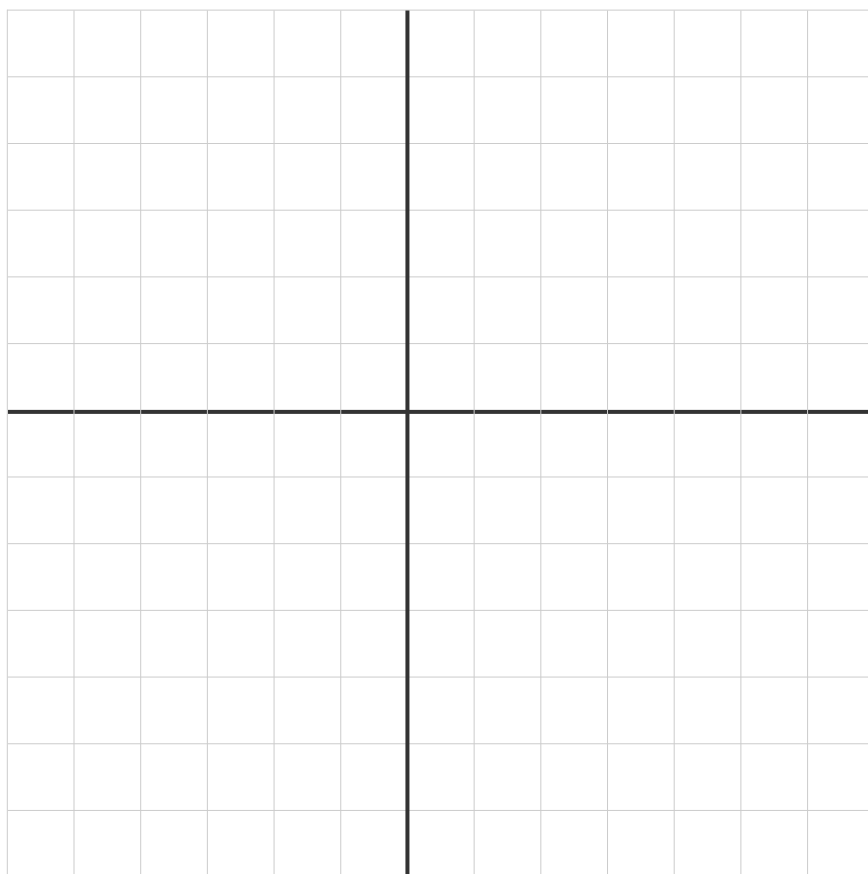
6. Are these values solutions to $x < 5$? Mark each.

- a. $x = 4$ ☐ Solution ☐ Not
- b. $x = 5$ ☐ Solution ☐ Not
- c. $x = -2$ ☐ Solution ☐ Not
- d. $x = 4.99$ ☐ Solution ☐ Not

Part D • Coordinate Plane

7. Plot these points on the coordinate plane below: A(3, 4), B(-2, 5), C(-3, -4), D(4, -1), E(0, -3).

In which quadrant is each point? A: _____ B: _____ C: _____ D: _____ E: _____



8. Two points are at $(-4, 3)$ and $(5, 3)$. What is the distance between them?

Show your reasoning:

Distance = _____ units

Part E • GCF and LCM

9. Find the greatest common factor (GCF) and least common multiple (LCM).

a. GCF of 18 and 24: _____

b. LCM of 18 and 24: _____

c. Hot dogs come in packs of 8 and buns come in packs of 12. What is the smallest number of hot dogs and buns you can buy so there are NO leftovers? _____ Is this a GCF or LCM problem? _____

Part F • Error Analysis & Reasoning

10. Andre claims that -8 is greater than -3 because $8 > 3$. Is Andre correct?

☐ Yes ☐ No

Use a number line or absolute value to explain:

11. Write your own real-world situation that uses negative numbers AND involves comparing two values. Solve it.

My situation:

Solution:
