

Grade 6 - Ordering Rational Numbers and Absolute Value - Answer Key

Common Core 6.NS.C.7a, 6.NS.C.7b, 6.NS.C.7c, 6.NS.C.7d · maths-pdf.fr/en/

Check your comparisons here. Each solution places the numbers on a number line, names which is farther right or left, and states the inequality or absolute value in bold. Contexts are explained in words.

Grade 6 · Common Core State Standards: **6.NS.C.7a**, **6.NS.C.7b**, **6.NS.C.7c**, **6.NS.C.7d**

Exercise 1 - Compare an integer pair

On a number line, the number farther to the right is greater.

-3 is to the left of 2 .

$$-3 < 2$$

Exercise 2 - Compare two negatives

On a number line, the number farther to the right is greater.

-7 is to the left of -4 .

$$-7 < -4$$

Exercise 3 - Compare decimals

-0.5 is -0.50 , which is farther left than -0.25 .

$$-0.5 < -0.25$$

Exercise 4 - Compare fractions

Write $-\frac{1}{2} = -\frac{2}{4}$.

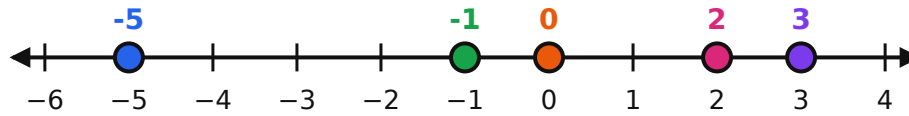
$-\frac{3}{4}$ is 3 fourths left of 0 and $-\frac{2}{4}$ is 2 fourths left, so $-\frac{3}{4}$ is farther left.

$$-\frac{3}{4} < -\frac{1}{2}$$

Exercise 5 - Order integers

Least is farthest left.

$-5, -1, 0, 2, 3$



From left to right: least to greatest.

Exercise 6 - Order rational numbers

Negative numbers: $-3.1 < -2.5 < -2$, then the positive number 1.5.

$-3.1, -2.5, -2, 1.5$

Exercise 7 - Write an inequality

A is -4 and B is 1. A is to the left of B.

$-4 < 1$ (or $1 > -4$)

Exercise 8 - Absolute value of a negative

Absolute value is the distance from 0 on a number line. -8 is 8 units from 0.

$|-8| = 8$

Exercise 9 - Absolute value practice

(a) 5 is 5 units from 0. (b) 0 is 0 units from 0. (c) -3.5 is 3.5 units from 0.

5; 0; 3.5

Exercise 10 - Distance from zero

$|-6| = 6$ and $|6| = 6$.

Both are 6 units from 0. Opposites have the same absolute value.

Exercise 11 - Ocean depths

-80 is to the right of -120 , so $-80 > -120$.

$-80 > -120$; **Diver A is higher.**

Exercise 12 - Colder temperature

-12 is farther left, so $-12 < -5$.

$-12 < -5$; **Tuesday was colder.**

Exercise 13 - Debt and magnitude

Liam: -50 . Maya: -30 .

$-50 < -30$, but $|-50| = 50 > 30 = |-30|$.

Liam owes more money. Greater debt means a smaller (more negative) number.

Exercise 14 - Distance below the surface

$|-35| = 35$.

The submarine is 35 feet below the surface (35 units from 0).

Exercise 15 - Compare absolute values

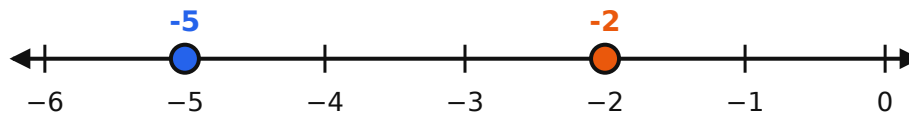
$|-9| = 9$ and $|6| = 6$.

$|-9| > |6|$

Exercise 16 - True or false?

-2 is 2 units left of 0 and -5 is 5 units left of 0. -2 is farther right.

True.



Negative 2 is to the right of negative 5.

Exercise 17 - Order with absolute value

$$|-4| = 4, |2| = 2, -|5| = -5.$$

The values are 4, -3, 2, -5.

$$-|5|, -3, |2|, |-4| \text{ (that is, } -5, -3, 2, 4)$$

Exercise 18 - Golf scores

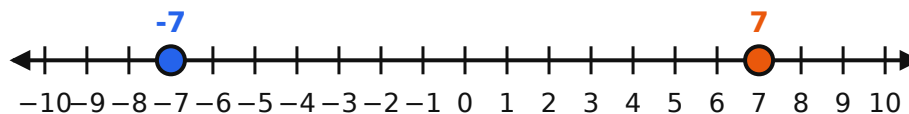
$$-5 < -3 < 0 < 2.$$

Priya (-5), Dylan (-3), Jamal (0), Maya (+2). Priya has the best score.

Exercise 19 - Same absolute value

The numbers 7 units from 0 are 7 and -7.

7 and -7



Both are 7 units from 0.

Exercise 20 - City temperatures

Order from least to greatest: -15, -11, -8, -2.

Cities: Duluth, Buffalo, Fairbanks, Denver.

$|-15|=15$ is the greatest absolute value.

Duluth, Buffalo, Fairbanks, Denver; Duluth has the greatest absolute value