

Left or Right?

Read inequalities as positions on a number line.

GRADE 6 • 6.NS.C.7a

CCSS.Math.Content.6.NS.C.7a "Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. For example, interpret $-3 > -7$ as a statement that -3 is located to the right of -7 on a number line oriented from left..."

NAME _____

DATE _____

POSITION TELLS THE VALUE

On a number line that goes from left to right, numbers farther right are greater. Numbers farther left are less, so the inequality symbol points toward the smaller number.

WORKED EXAMPLE

Interpret $-5 < 1$ as a statement about a number line.

1. Locate -5 on the number line.
2. Locate 1 on the same number line.
3. -5 is to the left of 1.
4. A number to the left is less than a number to the right.

Answer: -5 is located to the left of 1.

PRACTICE 6 problems

- 1** Complete the inequality: $-8 \underline{\hspace{1cm}} -3$. Then name the number that is to the right.

ANSWER _____

- 2** Interpret $6 > -1$ as a statement about a number line.

ANSWER _____

- 3** The number 7 is to the left of 9 on a number line. Write an inequality.

ANSWER _____

- 4** The number -6 is to the right of -10 on a number line. Write an inequality.

ANSWER _____

- 5** Which number is farther right, $-2/3$ or $-3/4$? Write an inequality to show your answer.

ANSWER _____

- 6** Mia says that 0 is to the left of -11. Is Mia correct? Write the correct positional statement and inequality.

ANSWER _____

APPLY IT Show your work

- 1** During a winter hike, the temperature was -12 degrees at sunrise and -7 degrees at noon. Write an inequality comparing the temperatures. Then describe their positions on a number line.

WORK SPACE

ANSWER _____

- 2** In an online game, Ari's rating changed by -9 points and Sam's rating changed by -13 points. Whose change is farther right on a number line? Write an inequality.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Three points on a number line are labeled $-\frac{7}{8}$, $-\frac{2}{3}$, and $\frac{3}{8}$. List the numbers from left to right. Then write two inequalities that explain your order.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Complete the inequality: $-8 \underline{\hspace{1cm}} -3$. Then name the number that is to the right.	$-8 < -3$; -3 is to the right.
2	Interpret $6 > -1$ as a statement about a number line.	6 is located to the right of -1.
3	The number 7 is to the left of 9 on a number line. Write an inequality.	$7 < 9$
4	The number -6 is to the right of -10 on a number line. Write an inequality.	$-6 > -10$
5	Which number is farther right, $-2/3$ or $-3/4$? Write an inequality to show your answer.	$-2/3 > -3/4$
6	Mia says that 0 is to the left of -11 . Is Mia correct? Write the correct positional statement and inequality.	No. 0 is to the right of -11; $0 > -11$.

PART 2 • APPLY IT

- $-7 > -12$. -7 is to the right of -12 on a number line.** Compare the two temperatures by their locations. The temperature closer to zero, -7 , is farther right and therefore greater.
- Ari's change is farther right; $-9 > -13$.** Locate both negative changes on a number line. -9 is closer to zero than -13 , so it is farther right.

CHALLENGE

$-7/8$, $-2/3$, $3/8$; $-7/8 < -2/3$ and $-2/3 < 3/8$.

Accept equivalent positional language, such as "farther right" for greater and "farther left" for less. For the challenge, accept the combined inequality $-7/8 < -2/3 < 3/8$.