

Integer Trail Quest

Use number lines to compare, order, and measure integers.

GRADE 6 • 6.NS.2

6.NS.2 "The student will reason and use multiple strategies to represent, compare, and order integers. Represent integers (e.g., number lines, concrete materials, pictorial models), including models derived from contextual situations..."

NAME _____

DATE _____

NUMBER LINE CLUES

On a number line, numbers farther right are greater, and numbers farther left are less. The absolute value of an integer is its distance from 0, so it is always 0 or positive.

WORKED EXAMPLE

Use a number line to compare -13 and -1. Then find the absolute value of -13.

1. Start at 0 and move 13 units left to locate -13.
2. The number -13 is left of -1, so $-13 < -1$.
3. The distance from -13 to 0 is 13 units, so $|-13| = 13$.

Answer: $-13 < -1$; $|-13| = 13$

PRACTICE 6 problems

- 1** On a number line, point P is 5 units left of 0. What integer does P represent?

ANSWER _____

- 2** Find $|-12|$.

ANSWER _____

- 3** Write $<$, $>$, or $=$ to make the statement true:
 -7 $\underline{\hspace{1cm}}$ -2

ANSWER _____

- 4** Write $<$, $>$, or $=$ to make the statement true:
 6 $\underline{\hspace{1cm}}$ -6

ANSWER _____

- 5** Order -8, 2, -10, and 0 from least to greatest.

ANSWER _____

- 6** What negative integer has an absolute value of 11?

ANSWER _____

APPLY IT Show your work

- 1** In a video game, Kai's character is on level -18, and Nia's character is on level 7. Whose character is on the higher level? How many levels apart are the characters?

WORK SPACE

ANSWER _____

- 2** A game map marks the safe zone at 0. Jules is at checkpoint -14, and Ren is at checkpoint 9. Who is closer to the safe zone? How far apart are the checkpoints?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Order -15, 8, -3, 0, and 12 from least to greatest. Then identify the integer with the greatest absolute value.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	On a number line, point P is 5 units left of 0. What integer does P represent?	-5
2	Find $ -12 $.	12
3	Write $<$, $>$, or $=$ to make the statement true: -7 ___ -2	$-7 < -2$
4	Write $<$, $>$, or $=$ to make the statement true: 6 ___ -6	$6 > -6$
5	Order -8, 2, -10, and 0 from least to greatest.	-10, -8, 0, 2
6	What negative integer has an absolute value of 11?	-11

PART 2 • APPLY IT

1. **Nia's character is higher. The characters are 25 levels apart.** Level 7 is to the right of -18 on a number line, so it is higher. The distance is $18 + 7 = 25$ levels.
2. **Ren is closer to the safe zone. The checkpoints are 23 units apart.** The distances from 0 are 14 units for Jules and 9 units for Ren, so Ren is closer. The distance between -14 and 9 is $14 + 9 = 23$ units.

CHALLENGE

-15, -3, 0, 8, 12; -15 has the greatest absolute value.

Accept equivalent comparison wording that correctly identifies relative position on a number line. For word problems, accept correct numerical distances with clear labels such as levels, units, or checkpoints.