LESSON MAKER PRO

Integer Insight

Compare values above, below, and at zero.

GRADE 6 · 6.NR.3.1

6.NR.3.1 "Identify and compare integers and explain the meaning of zero based on multiple authentic situations."

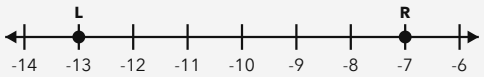
NAME _____ DATE _____

INTEGERS AND ZERO

On a number line, integers farther right are greater, and integers farther left are less. Zero is neither positive nor negative. It can mean no change or a reference point, such as ground level or sea level.

WORKED EXAMPLE

Use the number line to compare -13 and -7. Write <, >, or =.



1. Locate -13 and -7 on the number line.
2. -13 is farther left than -7.
3. A number farther left is less.

Answer: -13 < -7

PRACTICE 6 problems

1 A hiker climbs 12 meters from a trail marker. Write the integer that represents the climb.

ANSWER _____

2 A playlist has no songs downloaded yet. Write the integer that represents the number of downloaded songs.

ANSWER _____

3 Write <, >, or = to make the statement true: -15 ___ -2

ANSWER _____

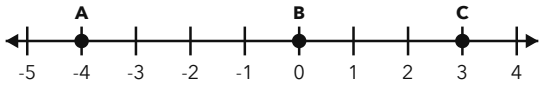
4 List these integers from least to greatest: 5, -8, 3, -1.

ANSWER _____

5 One elevator is at level -4. Another elevator is at level -3. Which elevator is lower?

ANSWER _____

6 Use the number line. List the point labels from least to greatest. Then explain what point B could mean if 0 is the ground floor of a building.



ANSWER _____

APPLY IT Show your work

1 In a coding game, Jada's score changes by -11 points in round one, 4 points in round two, and 0 points in round three. List the score changes from least to greatest. What does 0 mean in this situation?

WORK SPACE

ANSWER _____

2 A diver is 18 meters below sea level, written as -18 meters. A drone is 13 meters above sea level, written as 13 meters. Which is higher? Write a comparison statement, and explain what 0 meters means.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A science museum records these temperatures: a freezer is -16°C, a drink cooler is -5°C, an ice chest is 0°C, and a refrigerator is 2°C. List the temperatures from coldest to warmest. Explain why 0°C belongs between the negative and positive temperatures.

WORK SPACE AND ANSWER

ANSWER KEY

Integer Insight

GRADE 6 · 6.NR.3.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A hiker climbs 12 meters from a trail marker. Write the integer that represents the climb.	**12**
2	A playlist has no songs downloaded yet. Write the integer that represents the number of downloaded songs.	**0**
3	Write <, >, or = to make the statement true: -15 ___ -2	**<**
4	List these integers from least to greatest: 5, -8, 3, -1.	**-8, -1, 3, 5**
5	One elevator is at level -4. Another elevator is at level -3. Which elevator is lower?	**The elevator at level -4.**
6	Use the number line. List the point labels from least to greatest. Then explain what point B could mean if 0 is the ground floor of a building.	**A, B, C; B means ground floor.**

PART 2 · APPLY IT

1. **-11, 0, 4; 0 means Jada's score did not change in round three.** Order the negative change, zero, and positive change from left to right on a number line. Zero represents no gain or loss of points.
2. **The drone is higher; 13 > -18. Zero meters means sea level.** A positive elevation is above sea level, while a negative elevation is below sea level. Compare 13 and -18.

CHALLENGE

-16°C, -5°C, 0°C, 2°C; 0°C is the reference temperature between temperatures below zero and temperatures above zero.

Accept a positive sign with positive integers when it does not change the value. Accept equivalent clear statements that zero means no change, ground level, sea level, or a reference point, as appropriate.