

Distance or Order

Sort statements about negative numbers.

CCSS.Math.Content.6.NS.C.7d "Distinguish comparisons of absolute value from statements about order. For example, recognize that an account balance less than -30 dollars represents a debt greater than 30 dollars."

NAME _____

DATE _____

DISTANCE FROM ZERO

These statements tell how far a number is from 0. They may use absolute value or describe a positive amount, such as a distance or debt.

A balloon is at -18 meters. It is 18 meters from the ground level marked 0.

NUMBER ORDER

These statements tell which number is greater, less, left, or right. They compare the numbers' positions on a number line.

A score of 7 is greater than a score of -3.

1 SORT _____ 8 items

For Part 1, circle the category for each statement, then for Part 2, choose two statements and explain what words or symbols show each category.

1. The absolute value of -12 is 12.

DISTANCE

ORDER

2. A cave at -25 m is 25 m from sea level.

DISTANCE

ORDER

3. $-5 < 3$

DISTANCE

ORDER

4. The temperature -14°C is farther from 0°C than 6°C .

DISTANCE

ORDER

5. -9 is to the left of -2 on a number line.

DISTANCE

ORDER

6. $4 > -11$

DISTANCE

ORDER

7. An account balance of -27 dollars is a debt of 27 dollars.

DISTANCE

ORDER

8. $-16 < -10$

DISTANCE

ORDER

2 PROVE IT Explain your thinking

Pick two items from Part 1. For each one, tell how you knew where it belonged.

ITEM # _____ HOW I KNEW _____

ITEM # _____ HOW I KNEW _____

3 MAKE YOUR OWN One of each

For Part 3, write one new DISTANCE statement and one new ORDER statement.

DISTANCE _____

ORDER _____

CHALLENGE

Write two statements about an account balance of -45 dollars: one DISTANCE statement and one ORDER statement.

PART 1 • SORT

#	ITEM	CATEGORY	WHY
1	The absolute value of -12 is 12.	DISTANCE	It gives the distance of -12 from 0.
2	A cave at -25 m is 25 m from sea level.	DISTANCE	It describes a distance from 0, represented by sea level.
3	$-5 < 3$	ORDER	The less-than symbol compares number order.
4	The temperature -14°C is farther from 0°C than 6°C .	DISTANCE	It compares distances from 0.
5	-9 is to the left of -2 on a number line.	ORDER	Left and right describe number order.
6	$4 > -11$	ORDER	The greater-than symbol compares number order.
7	An account balance of -27 dollars is a debt of 27 dollars.	DISTANCE	The debt amount is the absolute value of the negative balance.
8	$-16 < -10$	ORDER	The less-than symbol compares number order.

PART 2 • PROVE IT

Accept any explanation that names the deciding feature from the rule box for the chosen item.

PART 3 • MAKE YOUR OWN (SAMPLE ANSWERS)

- **DISTANCE:** The absolute value of -22 is 22.
- **ORDER:** -13 is less than 5.

Challenge: **DISTANCE:** An account balance of -45 dollars represents a debt of 45 dollars. **ORDER:** -45 dollars is less than 0 dollars.

For Part 2, accept explanations that identify distance from 0, absolute value, or a positive debt amount for **DISTANCE**. Accept explanations that identify greater than, less than, left, right, or number-line position for **ORDER**.