LESSON MAKER PRO

Right or Farther?

Compare numbers and their distances from zero.

GRADE 6 · 6.NOS.C.8

6.NOS.C.8 "Order and identify the absolute value of rational numbers. Interpret statements of inequality as statements about the relative position of two numbers on a number line (e.g...."

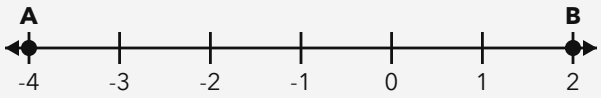
NAME _____ DATE _____

POSITION AND DISTANCE

On a number line, the number farther right is greater. Absolute value is a number's distance from 0, so it is never negative.

WORKED EXAMPLE

Compare A and B using < or >. Find the absolute value of A.



1. A is left of B.
2. -4 < 2.
3. A is 4 units from 0, so |-4| = 4.

Answer: -4 < 2; |-4| = 4

PRACTICE 4 problems

1 Fill in < or >: -3 ___ -7. Which number is farther from 0?

ANSWER _____

2 Find |-5/2|.

ANSWER _____

3 Order -1.25, 0.5, and -0.75 from least to greatest.

ANSWER _____

4 Fill in < or >: -6 ___ -8. Which number has the greater absolute value?

ANSWER _____

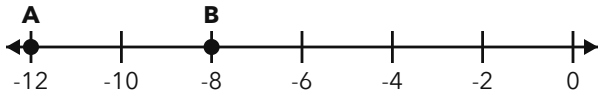
APPLY IT Show your work

1 The number line shows temperatures for two outdoor game days, A and B. Which day is warmer? Write an inequality using their temperatures.



ANSWER _____

2 The number line shows A's and B's dollar balances after they bought a game together. A negative balance is money owed. Who owes more? Write an absolute value equation for that debt.



ANSWER _____

CHALLENGE One step up

A diver is at -3/2 meters, and a fish is at -5/4 meters. Which is deeper? Write an inequality and explain using distance from 0.

WORK SPACE AND ANSWER

ANSWER KEY

Right or Farther?

GRADE 6 · 6.NOS.C.8

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Fill in < or >: -3 ___ -7. Which number is farther from 0?	**-3 > -7; -7**
2	Find |-5/2|.	**5/2**
3	Order -1.25, 0.5, and -0.75 from least to greatest.	**-1.25, -0.75, 0.5**
4	Fill in < or >: -6 ___ -8. Which number has the greater absolute value?	**-6 > -8; -8**

PART 2 · APPLY IT

1. **Day B; -1°C > -9°C** B is farther right on the number line, so its temperature is greater.
2. **A owes more; |-12| = 12 dollars** A's balance is 12 dollars from 0, while B's is 8 dollars from 0.

CHALLENGE

The diver is deeper. -3/2 < -5/4, and |-3/2| = 3/2 is greater than |-5/4| = 5/4, so the diver is farther below 0.

Accept equivalent fractions or decimals in the challenge if the inequality and distance comparison are correct.