LESSON MAKER PRO

Rational Number Showdown

Compare and order positive and negative rational numbers.

GRADE 6 · 6.NR.3.4

6.NR.3.4 "Write, interpret, and explain statements of order for rational numbers in authentic, mathematical situations. Compare rational numbers, including integers, using equality and inequality symbols."

NAME _____ DATE _____

COMPARE WITH PLACE VALUE

On a number line, numbers farther to the right are greater. For negative numbers, the number closer to zero is greater. Rewrite fractions and decimals in a common form when needed, then use <, >, or =.

WORKED EXAMPLE

Compare 7/16 and 0.45.

1. Rewrite 0.45 as 45/100.
2. Use denominator 80: 7/16 = 35/80 and 45/100 = 36/80.
3. Since 35/80 is less than 36/80, place <.

Answer: 7/16 < 0.45

PRACTICE 6 problems

1 Write <, >, or = to compare: -6 ___ -2

ANSWER _____

2 Write <, >, or = to compare: 5/6 ___ 0.8

ANSWER _____

3 Write <, >, or = to compare: -1/4 ___ -0.3

ANSWER _____

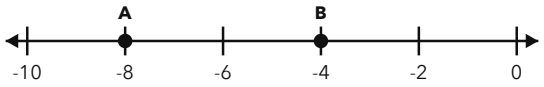
4 Write <, >, or = to compare: -7/10 ___ -0.65

ANSWER _____

5 Order these numbers from least to greatest: 1/2, -3/2, -1, 0.

ANSWER _____

6 Use the number line. Write <, >, or = to compare A and B.



ANSWER _____

APPLY IT Show your work

1 At a robotics contest, each team's time difference from the target time is shown. A negative difference means the team finished early. List the teams from earliest finish to latest finish. Then write an inequality chain for their time differences.

TIME DIFFERENCE FROM TARGET

Team	Time difference (minutes)
Ari	-1.6
Bo	-3/2
Cam	-1.45

ANSWER _____

2 Maya used 1 3/4 GB of mobile data to watch videos. Leo used 1.7 GB. Write an inequality comparing the amounts. Then explain who used more data.

WORK SPACE

ANSWER _____

CHALLENGE One step up

Order -7/12, -0.58, and -3/5 from least to greatest. Explain your reasoning by rewriting the numbers in a common form.

WORK SPACE AND ANSWER

ANSWER KEY

Rational Number Showdown

GRADE 6 · 6.NR.3.4

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Write <, >, or = to compare: -6 ___ -2	**-6 < -2**
2	Write <, >, or = to compare: 5/6 ___ 0.8	**5/6 > 0.8**
3	Write <, >, or = to compare: -1/4 ___ -0.3	**-1/4 > -0.3**
4	Write <, >, or = to compare: -7/10 ___ -0.65	**-7/10 < -0.65**
5	Order these numbers from least to greatest: 1/2, -3/2, -1, 0.	**-3/2 < -1 < 0 < 1/2**
6	Use the number line. Write <, >, or = to compare A and B.	**A < B**

PART 2 · APPLY IT

1. **Ari, Bo, Cam; -1.6 < -3/2 < -1.45** Compare the negative values. The value farthest below zero represents the earliest finish.
2. **1 3/4 > 1.7; Maya used more data.** Rewrite 1 3/4 as 1.75. Since 1.75 is greater than 1.7, Maya used more data.

CHALLENGE

-3/5 < -7/12 < -0.58. For example, -3/5 = -180/300, -7/12 = -175/300, and -0.58 = -174/300.

Accept equivalent fraction or decimal forms and correctly written comparison chains. For explanations, accept any accurate method that compares values using a number line, common denominators, or decimal place value.