

Rational Number Rankings

Compare, order, and explain 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 CONFIDENCE

On a number line, numbers farther to the right are greater. For negative numbers, the number closer to 0 is greater. Rewrite fractions and decimals in matching forms when that makes a comparison easier.

WORKED EXAMPLE

Compare $-7/12$ and $-5/8$. Write $<$, $>$, or $=$.

1. Use 24 as a common denominator.
2. $-7/12 = -14/24$.
3. $-5/8 = -15/24$.
4. Since $-14/24$ is greater than $-15/24$, choose $>$.

Answer: $-7/12 > -5/8$

PRACTICE 6 problems

- 1** Compare -9 and 4 . Write $<$, $>$, or $=$.

ANSWER _____

- 2** Compare $3/5$ and 0.58 . Write $<$, $>$, or $=$.

ANSWER _____

- 3** Compare $-7/10$ and -0.65 . Write $<$, $>$, or $=$.

ANSWER _____

- 4** Compare $-1 \frac{1}{4}$ and -1.25 . Write $<$, $>$, or $=$.

ANSWER _____

- 5** Order $2/3$, $-5/6$, 0 , and $-3/5$ from least to greatest.

ANSWER _____

- 6** A student writes $-0.08 < -0.8$. Is the statement correct? Explain.

ANSWER _____

APPLY IT Show your work

- 1** In a game tournament, Jalen's score change was -2.4 points. Ana's score change was $-2 \frac{1}{5}$ points. Whose score change was greater? Write an inequality and name the player.

WORK SPACE

ANSWER _____

- 2** Two members of a gaming club rate a new game. Luis gives it $4 \frac{3}{8}$ stars, and Priya gives it 4.35 stars. Which rating is higher? Write an inequality and name the member.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Order -1.6 , $-1 \frac{3}{5}$, $-\frac{13}{8}$, and -1.58 from greatest to least. Explain how you know where the equal values belong.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Compare -9 and 4. Write $<$, $>$, or $=$.	$-9 < 4$
2	Compare $\frac{3}{5}$ and 0.58. Write $<$, $>$, or $=$.	$\frac{3}{5} > 0.58$
3	Compare $-\frac{7}{10}$ and -0.65. Write $<$, $>$, or $=$.	$-\frac{7}{10} < -0.65$
4	Compare $-1\frac{1}{4}$ and -1.25. Write $<$, $>$, or $=$.	$-1\frac{1}{4} = -1.25$
5	Order $\frac{2}{3}$, $-\frac{5}{6}$, 0, and $-\frac{3}{5}$ from least to greatest.	$-\frac{5}{6} < -\frac{3}{5} < 0 < \frac{2}{3}$
6	A student writes $-0.08 < -0.8$. Is the statement correct? Explain.	No. $-0.08 > -0.8$ because -0.08 is closer to 0.

PART 2 • APPLY IT

- $-2\frac{1}{5} > -2.4$, so Ana's score change was greater.** Rewrite $-2\frac{1}{5}$ as -2.2. Since -2.2 is closer to 0 than -2.4, it is greater.
- $4\frac{3}{8} > 4.35$, so Luis's rating is higher.** Rewrite $4\frac{3}{8}$ as 4.375. Since 4.375 is greater than 4.35, Luis's rating is higher.

CHALLENGE

$-1.58 > -1.6 = -1\frac{3}{5} > -\frac{13}{8}$. Since -1.6 and $-1\frac{3}{5}$ both equal -1.60 , they are equal and belong in the same position.

Accept equivalent fractions, decimals, or mixed numbers when the comparison or order is correct. For explanation items, accept a correct statement that a negative number closer to 0 is greater.