

Compare and Order Fractions, Mixed Numbers, and Decimals



When you compare and order mixed numbers and decimals greater than 1, always look at the whole numbers first.

Compare $1\frac{3}{4}$ and 2.7. Look at the whole numbers.

$$1\frac{3}{4} \qquad 2.7$$

$$1 < 2, \text{ so } 1\frac{3}{4} < 2.7.$$

Sometimes the whole numbers are the same. Then you must compare the fraction and decimal parts of the numbers. To do this, write them in the same form.

Compare $1\frac{3}{4}$ and 1.7.

The whole numbers are the same, so compare $\frac{3}{4}$ and 0.7.

Write both numbers as fractions OR Write both numbers as decimals.

$$\begin{array}{r} \frac{3}{4} \\ \downarrow \\ \frac{3}{4} \\ \downarrow \\ \frac{15}{20} \end{array} > \begin{array}{r} 0.7 \\ \downarrow \\ \frac{7}{10} \\ \downarrow \\ \frac{14}{20} \end{array}$$

$$\frac{3}{4} > 0.7, \text{ so } 1\frac{3}{4} > 1.7.$$

$$\begin{array}{r} \frac{3}{4} \\ \downarrow \\ 0.75 \end{array} > \begin{array}{r} 0.7 \\ \downarrow \\ 0.7 \end{array}$$

$$\frac{3}{4} > 0.7, \text{ so } 1\frac{3}{4} > 1.7.$$

Compare. Write $>$, $<$, or $=$.

1. Compare $3\frac{3}{5}$ and 3.5.

The whole numbers are the same, so compare $\frac{3}{5}$ and 0.5.

$$\begin{array}{r} \frac{3}{5} \\ \downarrow \\ \frac{3}{5} \end{array} \quad 0.5 \quad \text{OR} \quad \frac{3}{5} \quad 0.5$$

$$\frac{3}{5} > \frac{6}{10} \quad \frac{3}{5} > 0.5$$

$$3\frac{3}{5} > 3.5$$

2. Compare $1\frac{4}{5}$ and 1.82.

The whole numbers are the same, so compare $\frac{4}{5}$ and 0.82.

$$\begin{array}{r} \frac{4}{5} \\ \downarrow \\ \frac{4}{5} \end{array} \quad 0.82 \quad \text{OR} \quad \frac{4}{5} \quad 0.82$$

$$\frac{4}{5} > \frac{16}{20} \quad \frac{4}{5} > 0.82$$

$$1\frac{4}{5} > 1.82$$

3. $5\frac{3}{4} \bigcirc 5.4$

4. $0.65 \bigcirc \frac{4}{5}$

5. $4.2 \bigcirc 4\frac{1}{2}$

6. $3.9 \bigcirc 3\frac{9}{10}$

7. $2.3 \bigcirc 1\frac{1}{3}$

8. $2.88 \bigcirc 2\frac{7}{10}$