

PRIMARY MATHEMATICS FRACTIONS

COMPARING FRACTIONS

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NOTES

Comparing Fractions

Comparing fractions means determining the larger and the smaller fraction between any two or more fractions. Since fractions are made up of two parts - a **numerator** and a **denominator**, they are compared using a certain set of rules.

How to Compare Fractions?

Comparing fractions involves a set of rules related to the numerator and the denominator. When any two **fractions** are compared, we get to know the greater and the smaller fraction.

Comparing Fractions with Same Denominators

Let us compare $\frac{6}{17}$ and $\frac{16}{17}$

Step 1: Observe the denominators of the given fractions: $\frac{6}{17}$ and $\frac{16}{17}$. The denominators are the same.

Step 2: Now, compare the numerators. We can see that $16 > 6$.

Step 3: The fraction with the larger numerator is the larger fraction. Therefore, $\frac{6}{17} < \frac{16}{17}$.

PRIMARY MATHEMATICS

FRACTIONS

Comparing Fractions Using Cross Multiplication

Compare $\frac{1}{2}$ and $\frac{3}{4}$

- **Step 1:** When we [cross multiply](#) the given fractions for comparing them, we need to keep in mind that if we are multiplying the numerator of the first fraction with the denominator of the second fraction, we should write the product next to the first fraction. Here, $1 \times 4 = 4$, and we will write 4 next to the first fraction. (Write the product on the side of the selected numerator)
- **Step 2:** Similarly, when we are multiplying the numerator of the second fraction with the denominator of the first fraction, we should write the product next to the second fraction. Here, $3 \times 2 = 6$, and we will write 6 near the second fraction.
- **Step 3:** Now, compare the products 4 and 6. Since $4 < 6$, the respective fractions can be easily compared, that is, $\frac{1}{2} < \frac{3}{4}$. Therefore, $\frac{1}{2} < \frac{3}{4}$

$$\begin{array}{ccc} \frac{1}{2} & \begin{array}{c} \nearrow \quad \nwarrow \\ \nwarrow \quad \nearrow \end{array} & \frac{3}{4} \\ & & \\ \boxed{4} & < & \boxed{6} \\ & & \\ \therefore \frac{1}{2} & < & \frac{3}{4} \end{array}$$