Finding Equivalent Fractions with a given Numerator or Denominator

1. An equivalent fraction can be obtained by multiplying the numerator and denominator by the same number.

Let us understand with an example:

Example: Find the equivalent fraction of $\frac{2}{4}$.

Solution: $\frac{2}{4} = \frac{2 \times 2}{4 \times 2} = \frac{2 \times 3}{4 \times 3} = \frac{2 \times 4}{4 \times 4}$

$$\frac{2}{4} = \frac{4}{8} = \frac{6}{12} = \frac{8}{16}$$

Thus, $\frac{2}{4}$, $\frac{4}{8}$, $\frac{6}{12}$ and $\frac{8}{16}$ are equivalent fractions.

2. An equivalent fraction can also be obtained by dividing the numerator and denominator by the same number.

Example: Find the equivalent fraction of $\frac{8}{16}$.

Solution: $\frac{8}{16} = \frac{8 \div 2}{16 \div 2} = \frac{8 \div 4}{16 \div 4} = \frac{8 \div 8}{16 \div 8}$

$$\frac{8}{16} = \frac{4}{8} = \frac{8}{16} = \frac{1}{2}$$