

Learning Objectives:

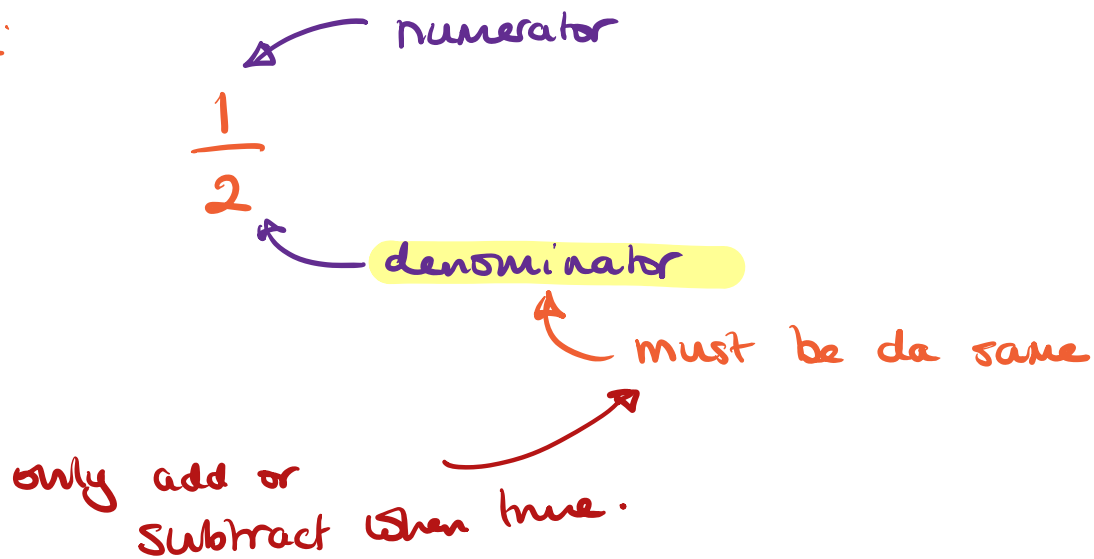
Know what an algebraic fraction is

Be able to find the lowest common denominator for two algebraic fractions

Be able to find equivalent algebraic fractions with different denominators

Be able to add and subtract algebraic fractions

Fractions.



eg. $\frac{1}{3} + \frac{2}{3} = \frac{1+2}{3} = \frac{3}{3} = \underline{\underline{1}}$

eg. $\frac{1}{5} + \frac{3}{5} = \frac{1+3}{5} = \frac{4}{5}$

eg. $\frac{2}{5} + \frac{1}{10} = \frac{4}{10} + \frac{1}{10}$

$$= \frac{4+1}{10}$$
$$= \frac{5}{10}$$
$$= \frac{1}{2}$$

$\frac{2}{5} = \frac{4}{10}$

Algebra.

$$2x + 3y = \underline{\underline{2x + 3y}}$$

$$\frac{1}{5} + \frac{1}{5} = \frac{2}{5}$$

$$= \frac{2x + 3y}{5}$$

$$\begin{aligned} \text{eg. } \frac{4x}{7} + \frac{3x}{7} &= \frac{4x + 3x}{7} \\ &= \frac{7x}{7} \\ &= x \end{aligned}$$

$$\text{eg. } \frac{3x}{5} + \frac{2x}{10} = \frac{6x}{10} + \frac{2x}{10}$$

$$= \frac{6x + 2x}{10}$$

$$= \frac{8x}{10}$$

$$= \frac{4x}{5}$$

$$\begin{aligned} 3x \times 2 &= 3 \times x \times 2 \\ &= 3 \times 2 \times x \\ &= 6x \end{aligned}$$

$$\text{eg. } \frac{4a}{3} + \frac{2a}{5} = \frac{20a}{15} + \frac{6a}{15}$$

$$= \frac{26a}{15}$$

$$\frac{20a + 6a}{15}$$

$$2a \times 3$$

$$= \frac{26a}{15}$$

$$4a \times 5$$

eg.

$$\frac{a}{6} - \frac{b}{9} = \frac{3a}{18} - \frac{2b}{18}$$

$$= \frac{3a - 2b}{18}$$