

Remember:

Adding / Sub. Fractions

Same
Denominator:

Add / Sub numerator
same denominator

$$\text{Ex. } \frac{6}{25} + \frac{9}{25} = \frac{6+9}{25} = \frac{15}{25} = \frac{3}{5}$$

different
Denominator:

- ① Find the LCD (or a common denominator).
- ② Write as equivalent fractions.
- ③ Add / Subtract like normal.

$$\text{Ex. } \frac{1}{7} - \frac{1}{6}$$

$$\text{① LCD: } 42$$

$$\text{② } \frac{1}{7} = \frac{6}{42}$$

$$\frac{1}{6} = \frac{7}{42}$$

$$\text{③ } \frac{1}{7} - \frac{1}{6}$$

$$= \frac{6}{42} - \frac{7}{42} = -\frac{1}{42} \quad \square$$

Multiplying | Dividing Fractions

When multiplying, just multiply straight across.

$$\text{Ex. } \frac{6}{7} \cdot \frac{4}{5} = \frac{6 \cdot 4}{7 \cdot 5} = \frac{24}{35}$$

Here, we cannot reduce, b/c 24 and 35 do not have common factors!

$$\text{Ex. } \frac{7}{x} \cdot \frac{4x^2}{3} = \frac{7 \cdot 4x^2}{x \cdot 3} = \frac{28x^2}{3x} = \frac{28 \cdot \cancel{x} \cdot x}{3 \cdot \cancel{x}} = \frac{28x}{3}$$

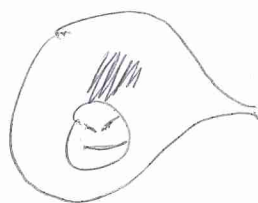
Ask yourself why we cannot reduce this fraction.

When dividing, just multiply the first fraction by the reciprocal of the second.

$$\text{Ex. } \frac{7}{12} \div \frac{4}{6} = \frac{7}{12} \cdot \frac{6}{4}$$

multiply reciprocal of the second fraction

$$= \frac{7 \cdot 6}{12 \cdot 4} = \frac{42}{48} = \text{---}$$



You fill it in!

