

Dividing Fractions

* Multiply by the reciprocal

Reciprocal \rightarrow a fraction that can be multiplied to another fraction to equal 1

$$\frac{7}{9} \cdot \boxed{\frac{9}{7}} = 1$$

reciprocal

$$\frac{2}{5} \rightarrow \frac{5}{2} \quad \frac{15}{22} \rightarrow \frac{22}{15}$$

$$\frac{1}{12} \rightarrow \frac{12}{1} \quad 5 \rightarrow \frac{1}{5}$$

$$2\frac{3}{5} \rightarrow \frac{13}{5} \rightarrow \frac{5}{13}$$

improper fraction reciprocal

How to divide Fractions

- 1) Leave the 1st fraction alone
- 2) Change \div to \times
- 3) Change fraction after \div to its reciprocal
- 4) Simplify, then multiply

* If you start with a mixed #, change it to improper fraction 1st

$$\frac{4}{7} \div \frac{1}{3}$$
$$\frac{4}{7} \times \frac{3}{1} = \frac{12}{7} = 1\frac{5}{7}$$

$$3 \div \frac{2}{5}$$
$$\frac{3}{1} \times \frac{5}{2} = \frac{15}{2} = 7\frac{1}{2}$$

$$\frac{2}{9} \div 3$$
$$\frac{2}{9} \times \frac{1}{3} = \frac{2}{27}$$

$$\frac{5}{9} \div \frac{11}{15}$$
$$\frac{5}{9} \times \frac{15}{11} = \frac{75}{99}$$

$$3\frac{4}{7} \div \frac{2}{3}$$
$$\frac{25}{7} \times \frac{3}{2} = \frac{75}{14} = 5\frac{5}{14}$$

$$2\frac{1}{2} \div 4\frac{2}{5}$$
$$\frac{5}{2} \div \frac{22}{5}$$
$$\frac{5}{2} \times \frac{5}{22} = \frac{25}{44}$$