

# Dividing Fractions

## Proper and improper fractions

"copy dot flip"

copy change change

multiply

change back to mixed number

$$\frac{2}{3} \div \frac{1}{4}$$

$$\begin{array}{ccc} \text{copy} & \text{dot} & \text{flip} \\ \frac{2}{3} & \cdot & \frac{4}{1} \\ & (x) & \end{array}$$

$$\frac{2}{3} \cdot \frac{4}{1} = \frac{8}{3}$$

$$\begin{array}{r} 3 \overline{)8} = 2 \frac{2}{3} \\ \underline{-6} \\ 2 \end{array}$$

SIMPLIFY

## Mixed numbers

\* change mixed numbers to improper fractions

MN  $\rightarrow$  IF  $\rightarrow$  MN

"Copy Dot Flip"

multiply

change back to mixed number

$$2\frac{1}{4} \div 1\frac{2}{3}$$

$$\frac{9}{4} \div \frac{5}{3}$$

$$\frac{9}{4} \cdot \frac{3}{5}$$

$$\frac{9}{4} \cdot \frac{3}{5} = \frac{27}{20}$$

$$\begin{array}{r} 1 \\ 20 \overline{)27} \rightarrow 1 \frac{7}{20} \\ \underline{-20} \\ 7 \end{array}$$
  
$$\boxed{1 \frac{7}{20}}$$

SIMPLIFY

# whole numbers

$$7 \div \frac{1}{2}$$

put a 1 under the whole number

$$\frac{7}{1} \div \frac{1}{2}$$

copy Dot Flip  
multiply

$$\frac{7}{1} \cdot \frac{2}{1}$$

**SIMPLIFY**

$$\frac{7}{1} \cdot \frac{2}{1} = \frac{14}{1}$$

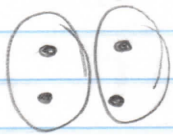
**14**

# How it works

$$4 \div 2 = \frac{2}{1}$$

Division

"How many equal sets of 2 are in 4?"

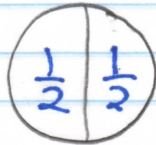


"There are 2 equal sets of 2 in 4."

$$1 \div \frac{1}{2}$$

"How many equal sets of  $\frac{1}{2}$  are in 1?"

$$\frac{1}{1} \cdot \frac{2}{1} = \frac{2}{1}$$



"There are 2 equal sets of  $\frac{1}{2}$  in 1"

**2**

$$\frac{1}{2} \div \frac{1}{4} = \frac{3}{2} \div \frac{1}{4}$$

"How many equal sets of  $\frac{1}{4}$  are in  $1\frac{1}{2}$ ?"

$$\frac{3}{2} \cdot \frac{4}{1} = \frac{12}{2} = 6$$

"There are 6 equal sets of  $\frac{1}{4}$  in  $1\frac{1}{2}$ ."

