

Dividing Fractions

When dividing fractions, keep the first fraction the same and multiply by the reciprocal of the second fraction.

$$\frac{-2}{5} \div \frac{3}{10}$$

keep the same change to \times switch to its reciprocal
 $\frac{3}{10}$ becomes $\frac{10}{3}$

Always simplify your final answer

$$\frac{-2}{5} \times \frac{10}{3} = \frac{-20}{15}$$
$$\frac{-20}{15} = \frac{-4}{3}$$

$$\frac{3}{4} \div -\frac{9}{8}$$

negative

$$\frac{3}{4} \times -\frac{8}{9}$$

$$\frac{24}{36} \div \frac{1}{12}$$

$$\frac{1}{3}$$

$$1\frac{1}{4} \div (-3)$$

$$\frac{5}{4} \div -\frac{3}{1}$$

$$\frac{5}{4} \times -\frac{1}{3}$$

$$-\frac{5}{12}$$

$$-\frac{5}{12}$$

RECALL HOW TO SIMPLIFY FIRST

$$2\frac{1}{2} \div \frac{25}{14}$$

$$\frac{5}{2} \div \frac{25}{14}$$

$$\frac{5}{2} \times \frac{14}{25}$$

$$\frac{\cancel{5}^1}{\cancel{5}^1} \times \frac{\cancel{14}^7}{\cancel{2}^1} =$$

$$\frac{1}{1} \times \frac{7}{1} = \frac{7}{1}$$

Divide.

a) $(-1.38) \div 0.6$

$$\frac{-138}{100} \div \frac{6}{10}$$

$$\frac{-138}{\cancel{100}} \times \frac{\cancel{10}}{6}$$

$$\frac{-138}{10} \times \frac{1}{6}$$

$$\frac{-138 \div 2}{60 \div 2} = \frac{69 \div 3}{30 \div 3} = \frac{23}{10}$$

HOW ARE MULTIPLICATION AND DIVISION RELATED?

$$8 \div 4 = 2$$



$$2 \times 4 = 8$$

A diagram illustrating the inverse relationship between division and multiplication. A box containing the fraction $\frac{3}{10}$ is connected by a bracket to the numbers 3 and 10 in the equation $\frac{3}{10} \div \frac{3}{10} = 1$. This indicates that $\frac{3}{10} \div \frac{3}{10} = 1$ is equivalent to $1 \times \frac{3}{10} = \frac{3}{10}$.

$$\frac{3}{10} \times \frac{10}{3} = \square$$

$$\frac{3}{10} \div \frac{3}{10} = 1$$

pg 134 #3, 4, 5,7, 12