

Warm-up

Multiply or divide. (p. 915)

$$56. \frac{1}{2} \cdot \frac{2}{5} = \frac{1}{5}$$

$$57. \frac{4}{7} \cdot \frac{1}{8} = \frac{1}{14}$$

~~$$58. \frac{2}{3} \cdot \frac{3}{10}$$~~

$$59. \frac{1}{5} \div \frac{3}{10} = \frac{1}{5} \cdot \frac{10}{3} = \frac{10}{15} = \frac{2}{3}$$

$$60. \frac{2}{3} \div \frac{4}{9}$$

~~$$61. \frac{3}{4} \cdot \frac{5}{8}$$~~

$$\frac{2}{3} \cdot \frac{9}{4} = \frac{6}{4} = \frac{3}{2}$$

$$\frac{3}{5} \cdot \frac{1}{2} = \frac{3 \cdot 1}{5 \cdot 2} = \frac{3}{10}$$

$$10 \div \frac{1}{2}$$

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

$$\frac{3}{5} \cdot \frac{2}{1} = \frac{6}{5}$$

$$10 \cdot \frac{1}{2}$$

2.6 Divide

Multiply

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

$$\frac{1}{5} \cdot 5 = \frac{5}{5} = 1$$

Make fraction

$\frac{2}{3}$ & $\frac{3}{2}$ are
Inverses!

$\frac{1}{5}$ & 5 too

#	Mult. Inverse
$\frac{1}{3}$	$\frac{3}{1}$ or 3
$\frac{2}{17}$	$\frac{17}{2}$
$\frac{1}{2}$	$\frac{2}{1}$
4	$\frac{1}{4}$

For

$$\frac{3x}{3} = \frac{12}{3}$$

$$x = 4$$

Division

$$3x = 12$$

* Inverse of 3 or $\frac{3}{1}$ is $\frac{1}{3}$

$$\frac{1}{3} \cdot \frac{3x}{1} = \frac{12}{1} \cdot \frac{1}{3}$$

$$\frac{3}{3} = 1 \quad \frac{12}{3}$$

$$x = 4$$

Mult. Inverse

$$\frac{2}{3} \cdot \frac{3}{2} x = 15 \cdot \frac{2}{3}$$

$$x = 10$$

$$15 = 10 + 5$$

$$x^2 \quad x^2$$

$$20 + 10$$

Division Rule

$a \div b$ is same as $a \cdot \frac{1}{b}$

$$7 \div 3 = 7 \cdot \frac{1}{3} = \frac{7}{1} \cdot \frac{1}{3} = \frac{7}{3}$$

$$19 \div 19 = 19 \cdot \frac{1}{19} = \frac{19}{1} \cdot \frac{1}{19} = \frac{19}{19} = 1$$

$$18 \div \left(-\frac{2}{9}\right) \rightarrow 18 \cdot -\frac{9}{2} \rightarrow -\frac{162}{2}$$

18 \rightarrow 10 + 8
90 + 72
160 + 2

$$\begin{array}{r} 18 \cdot -\frac{9}{2} \\ 9 \cdot -9 \end{array} = \textcircled{-81}$$

$$\frac{36x - 24}{6} = \frac{36x}{6} - \frac{24}{6} = \textcircled{6x - 4}$$

$$\frac{4x + 16}{8} = \frac{4x}{8} + \frac{16}{8} = \frac{1}{2}x + 2$$

or

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