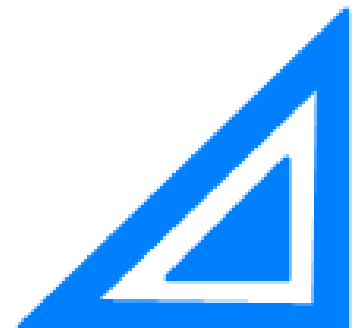


3 - 3

**Solving Equations by Using
Multiplication or Division**

Multiplication Property of Equality:

Ex:



Division Property of Equality:

Ex:



Goal is to get the variable by itself

"one x"



$$\text{Ex: } \frac{\cancel{20}^x}{\cancel{20}} = 4 \cdot 20$$

$$x = 80$$

$$\text{Ex: } \frac{\cancel{30}^x}{\cancel{30}} = \frac{7}{10} \cdot \frac{30}{1}$$

$$x = \frac{210}{10}$$

$$x = 21$$



$$\text{Ex: } 2\frac{1}{4} \mathbf{g} = 1\frac{1}{2}$$

$$\frac{\cancel{4}}{9} \cdot \frac{\cancel{8}}{4} \mathbf{g} = \frac{3}{2} \cdot \frac{4}{9}$$

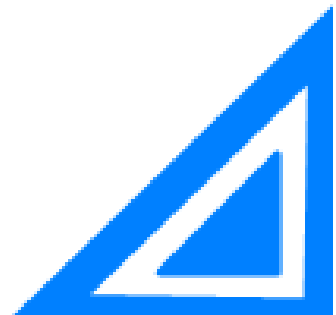
$$\mathbf{g} = \frac{12}{18}$$

$$\mathbf{g} = \frac{2}{3}$$

$$\text{Ex: } -3\frac{3}{8} \mathbf{k} = 1\frac{4}{5}$$

$$\frac{\cancel{2}}{9} \cdot -\frac{\cancel{27}}{\cancel{80}} \mathbf{k} = \frac{9}{5} \cdot \frac{-8}{27}$$

$$\mathbf{k} = \frac{-72}{135} = \frac{-8}{15}$$



$$\text{Ex: } \frac{42}{-6} = \frac{-6m}{-6}$$

$$-7 = m$$

$$m = -7$$

Ex: Negative eighteen times a number is - 198.

$$\frac{-18a}{-18} = \frac{-198}{-18}$$

$$a = 11$$



Homework:

p.138 #14-32 even, 33-36

