

## 1.5 Solving Equations

ex  $2x + 4 = 8$

$$\begin{array}{r} 2x + 4 = 8 \\ -4 \quad -4 \\ \hline 2x = 4 \\ \frac{2x}{2} = \frac{4}{2} \\ \boxed{x = 2} \end{array}$$

$$\text{ex } 2(x+3) = 5(x-3)$$

$$\begin{array}{r} 2x + 6 = 5x - 15 \\ -2x \quad -2x \\ \hline \end{array}$$

$$\begin{array}{r} 6 = 3x - 15 \\ +15 \quad +15 \\ \hline \end{array}$$

$$\begin{array}{r} 21 = 3x \\ \frac{21}{3} = \frac{3x}{3} \\ \boxed{7 = x} \end{array}$$

ex Suppose  $f(m) = 6m - (5 - 9m)$   
 $f(m) = 13$

$$13 = 6m - (5 - 9m)$$

$$13 = \underbrace{6m} - 5 + \underbrace{9m}$$

$$13 = 15m - 5$$

$$\frac{18}{15} = m \quad \frac{18}{15} = \frac{15m}{15}$$

$$\frac{18}{15} = m$$

1e

$$\frac{4 \rightarrow 12}{3 \rightarrow 1} = \frac{3}{4} \cdot (x + 2)$$

~~3~~                      ~~3/4~~

$$\frac{48}{3}$$

↙

$$\begin{array}{r} 16 = x + 2 \\ -2 \quad -2 \\ \hline \end{array}$$

**14 = x**

## 1.6 Rewriting Formulas

$$F = 32 + 1.8C$$

~~-32~~     ~~-32~~

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$$\frac{F-32}{1.8} = \frac{1.8C}{1.8}$$

$$\frac{F-32}{1.8} = C$$

ex Solve for  $h$  (+then  $b$ )

$$\frac{2}{1} \cdot A = \frac{1}{2} b h$$

$$\frac{2A}{b} = \frac{b h}{b}$$

$$\frac{2A}{b} = h$$



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$$2: A = \frac{(a+b)h}{2} \cdot 2$$

$$\frac{2A}{(a+b)} = \frac{\cancel{(a+b)}h}{\cancel{(a+b)}}$$

$$\frac{2A}{(a+b)} = h$$

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