

Monday 9/9

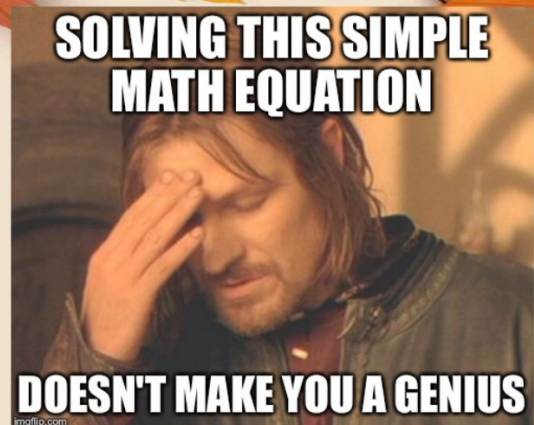
Solve for the indicated variable.

$$\begin{array}{r} 1. \quad 8x - 2 = -9 + 7x \\ \quad -7x \quad | \quad -7x \\ \quad x - 2 = -9 \\ \quad +2 \quad | \quad +2 \\ \quad \boxed{x = -7} \end{array}$$

$$\begin{array}{r} 2. \quad 12 = -4(-6x - 3) \\ \quad 12 = 24x + 12 \\ \quad -12 \quad | \quad -12 \\ \quad \hline \quad 0 = 24x \\ \quad \underline{24} \quad \underline{24} \\ \quad \hline \quad 0 = x \end{array}$$

Today I can solve problems with ratios and proportions.

Today I can speak about ratios using: ratio, proportion, and common factor.





Ratio: is a comparison of two quantities by division.

Proportion: an equation that represents two ratios by a common factor.

Are they equivalent?

$$\frac{16}{24} = \frac{8 \cdot \underline{2}}{8 \cdot \underline{3}} \quad \text{and} \quad \frac{16}{24} \div 8 = \frac{\underline{2}}{\underline{3}} \quad \frac{2}{4} = \frac{\underline{1}}{\underline{2}}$$

Solve the proportion:

$$\frac{x}{10} = \frac{3}{5}$$

$$\frac{30}{5} = \frac{5x}{5}$$

$$6 = x$$

$$\frac{7}{x+9} = \frac{21}{36}$$

$$21(x+9) = 252$$

$$\frac{21x + 189}{-189} = \frac{252}{-189}$$

$$\frac{21x}{21} = \frac{63}{21}$$

$$x = 3$$

Mark leads the baseball league with a batting average of .420. He struck out 1 for every 5 hits he got. If he went to bat 500 times. How many times did he strike out?

Strikes

of hits

1	X
5	500

$\times 100$

$\times 100$

$X = 100$

$$\frac{5X = 500}{5} \quad \frac{5}{5}$$

$X = 100$

A decorative border of autumn leaves in shades of yellow, orange, and red, scattered along the top and bottom edges of the page. The leaves are layered and have soft shadows, giving them a three-dimensional appearance.

**Work on writing and solving
equations hw**