

# Welcome!

## DO NOW:

- Complete your **Attendance Question** in Google Classroom!
- Today we'll be taking notes on **6.3 in the new packet**.

**Homework:** #107 MML 6.1 due TOMORROW 2/9  
#108 MML 6.2 due Friday 2/12  
#109 MML 6.3 due Tuesday 2/16

## 6.3 Proportions and Problem Solving

### 6.3 Objective A: Solving Problems by Writing Proportions

**Ex. 1.** It takes a word processor 30 minutes to word process and spell check 4 pages. Find how long it takes her to word process and spell check 22 pages.

$$\frac{30 \text{ min}}{4 \text{ pages}} \times \frac{x \text{ min}}{22 \text{ pages}}$$

$$4x = 30 \cdot 22$$

$$\frac{30 \text{ min}}{x \text{ min}} \times \frac{4 \text{ pages}}{22 \text{ page}}$$

$$x = 165 \text{ min}$$

**Ex. 2.** On an architect's blueprint, 1 inch corresponds to 8 feet. Find the length of a wall represented by a line  $2\frac{7}{8}$  inches long on the blue print.

$$\frac{1 \text{ in}}{8 \text{ ft}} \times \frac{2\frac{7}{8} \text{ in}}{x \text{ ft}}$$

$$1x = 8 \cdot 2\frac{7}{8}$$

$$x = 8 \cdot \frac{23}{8} = 8 \cdot 23 \div 8$$

$$x = 23 \text{ ft}$$

$$2 \cdot 8 = 16$$

$$16 + 7 = 23$$

**Ex. 3.** A bag of Scott fertilizer covers 3000 square feet of lawn. Find how many bags of fertilizer should be purchased to cover a rectangular lawn 260 feet by 180 feet.

$$\frac{3000}{1} = \frac{260 \times 180}{x}$$
$$\frac{3000}{1} = \frac{46,800}{x}$$

$3000x = 46,800$  16 bags

$x = 15.6$

**Ex. 4.** A Cubs baseball player gets 3 hits every 8 times at bat. If this Cubs player comes up to bat 40 times in the World Series, find how many hits he would be expected to get.

$$\frac{3}{8} = \frac{x}{40}$$

15 hits