

8th Grade Lesson 77

- I can solve problems involving percents greater than 100.

60% of the 80 parking spaces at the high school were filled on Monday.

$$\begin{aligned} 60\% \cdot 80 &= B \\ 0.6 \cdot 80 &= B \\ 48 &= B \end{aligned}$$

On Friday, 80 out of the 80 parking spaces are filled.

$$\begin{aligned} \frac{D \cdot 80}{80} &= \frac{80}{80} && 100\% \\ D &= 1 \end{aligned}$$

On game day, 120% of the 80 parking spaces are needed.

$$\begin{aligned} 120\% \cdot 80 &= B \\ 1.2 \cdot 80 &= B \\ 96 &= B \end{aligned}$$

Two hundred ten percent of 50 is what number?

$$\begin{aligned} 210\% \cdot 50 &= B \\ 2.1 \cdot 50 &= B \\ 105 &= B \end{aligned} \quad (105)$$

What percent of 40 is 60?

$$\begin{aligned} \frac{D \cdot 40}{40} &= \frac{60}{40} \\ D &= 1.5 \end{aligned} \quad (150\%)$$

One hundred fifty percent of what number is 300?

$$\begin{aligned} 150\% \cdot D &= 300 \\ 1.5 \cdot D &= 300 \\ \frac{1.5 \cdot D}{1.5} &= \frac{300}{1.5} \\ D &= 200 \end{aligned} \quad (200)$$

Jane is mad because today crullers cost 120% of what they did two years ago. What does a cruller that was 60¢ two years ago cost today?

$$\begin{aligned} \cancel{120\% \cdot B} &= \cancel{60\text{¢}} \\ 120\% \cdot 60\text{¢} &= B \\ 1.2 \cdot 60 &= B \\ 72 &= B \\ (72\text{¢}) \end{aligned}$$



Assignment:

Problem Set 77 #1-10, 15-18, 22, 25, 29, 30