7.2 Percents and Proportions

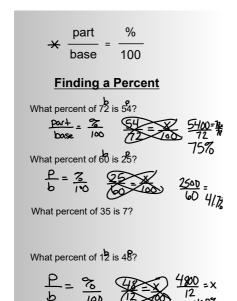
Students will be able to use proportions to solve percent problems.

Solving Percent Problems

You can represent "a is p percent of b" using the proportion

$$\frac{part}{base} = \frac{p}{100}$$

where a is a part of the base b and p%, or $\frac{p}{100}$, is the percent.



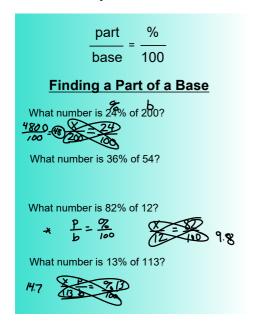
When looking at word problems:

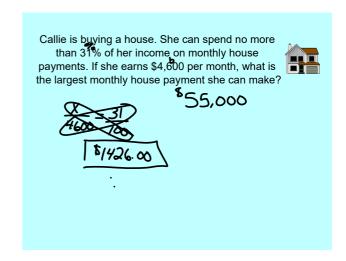
- 1. Identify what you are looking for (part, base, or percent)
- 2. Fill in the other numbers
- 3. Solve
- 4. Label

You are performing in a talent show. To decide who performs first, the names of all 15 participants are written on slips of paper and put in a hat. One name is drawn from the hat. What is the probability that you go first? Write your answer as a percent.

7.2 Percent and Proportions.notebook

January 31, 2020





Of the 338 teams in the NCAA Division 1 Women's Basketball, 3% are in the Southern Conference. How many teams are in the Southern Conference?

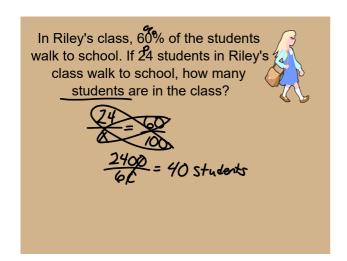
$$\frac{\text{part}}{\text{base}} = \frac{\%}{100}$$

$$\frac{\text{Finding a Base}}{12 \text{ is } 50\% \text{ of what number?}}$$

$$\frac{12 \text{ P}}{\text{X} \text{ b}} = \frac{\%}{100}$$

$$\frac{11 \text{ is } 22\% \text{ of what number?}}{22} = 50$$

$$4 \text{ is } 25\% \text{ of what number?}$$





Percent Problem	<u>Example</u>	<u>Proportion</u>
Find a percent	What percent of 48 is 12?	$\frac{12}{48} = \frac{p}{100}$
Find a part of a base	What number is 15% of 80?	$\frac{x}{80} = \frac{15}{100}$
Find a base	20 is 30% of what number?	$\frac{20}{x} = \frac{30}{100}$

<u>Homework</u>

Pg. 353-355

#3-8, 10-24 even,

28, 30, 41, 42