

Write your questions here!

Recall that **percent** means “for every 100” or “out of 100”. We will use this definition to solve problems that contain percents.



The method we will use:

$$\frac{\text{percent}}{100} = \frac{\text{is}}{\text{of}}$$

1. Find the “percent”, the “is” and the “of”.
2. Substitute the values into the proportion in the correct places and solve for the unknown value.
3. Check to make sure you have written your answer correctly. (%’s need a “%”!)

This single method can solve every type of percent problem you will encounter! (Hint: to learn about other methods and shortcuts, watch the Shortcuts Video at the end of the Unit! Let’s try some examples:

Examples:

1. 92% of 42 is what?
2. 145.8 is what percent of 150.1?
3. 19% of what is 20.9?

You try 3:

1. What percent of 99 is 56?
2. 141 is 75% of what?
3. What is 7% of 93?

Application-type questions:

A three euro tip is what percent of an 18.70€ taxi fare?

What percent of Baumholder HS population (181 students) are freshmen (42 students)?

The following table represents the distribution of dreams Mr. Sullivan has each night.

| Algebra | Thundercats | Jar Jar Binks | Farmville | NSync |
|---------|-------------|---------------|-----------|-------|
| 24% | 17% | 18% | 7% | 34% |

If Mr. Sullivan dreamt for 380 minutes last night, how many minutes were spent dreaming about NSync?

If Mr. Sullivan spent 45 minutes dreaming about Jar Jar Binks, how long did he sleep?

Now, summarize
your notes here!

Practice 4.3

Solve each problem. If necessary, round your answer to the nearest tenth (or tenth of a percent).

1) 102 is what percent of 127.5?

2) 10 is what percent of 20?

3) 48 is 300% of what?

4) What is 69% of 132?

5) 69% of what is 84.9?

6) 14 is 24% of what?

7) 134.4 is 35% of what?

8) What percent of 84 is 126?

9) What percent of 87 is 87?

10) What is 86% of 120?

11) What percent of 122 is 61?

12) 55% of what is 15?

13) What percent of 121 is 58?

14) 7% of 29 is what?

15) 186% of 102 is what?

16) What is 270% of 21.6?

1. What percent of 60 is 12?
2. 30 is 30% of what Number?
3. **Community Service.** Suppose your friend's NHS service project requires 36 hours of community service. Your friend spent 56 hours volunteering at Landstuhl Regional Medical Center. What percent of the requirement did he fill?
4. **Flipped Mastery.** A survey was taken by Flipped-Mastery students asking their preference of class format after experiencing both FM and traditional methods. 70% of 280 total respondents favored the new FM format. How many students favored the new format?
5. **Teaching Money.** Teacher salaries vary state to state. The average teacher salary in California, the highest paying state, is \$63,640 while the average teacher salary in the lowest state (S. Dakota) is 55.6% of that. What is the average teacher salary in South Dakota?

4.3 Review Skillz

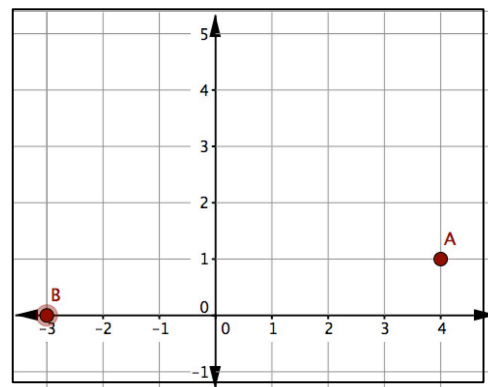
1. Solve:

$$\frac{x}{12} - 7 = -2$$

2. Simplify:

$$13x - (-12x - 5)$$

3. Describe how to move from Point A to Point B:



_____ units in the y direction

_____ units in the x direction

6. Describe how to move from point C(3, -1) to Point D(-3, 3):