

9) "Arachibutyrophobia" is the fear of peanut butter getting stuck to the roof of your mouth. In a survey of 150 people, 2% of them have arachibutyrophobia. How many people surveyed have this fear?

10) When making peanut butter and jelly sandwiches, 20% of people put the peanut butter on first. Out of 75 people, how many people would NOT put peanut butter on first?

11) At ECMS, about 25% of the 6th graders made an A in math. If there are 416 6th graders, how many made an A?

12) Last year, ECMS had 1280 students. If we have 110% of that amount this year, how many students are at ECMS this year?

Finding the "Whole" when Given the Percent

Example:

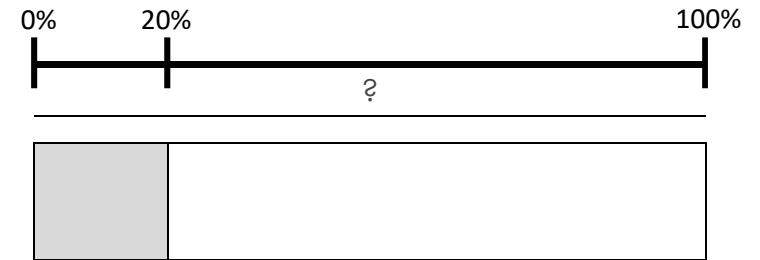
There are 14 candies in a bag that is 20% full. How many candies are in a full bag?

USE A TAPE DIAGRAM

Whole: Unknown (# of candies in full bag)

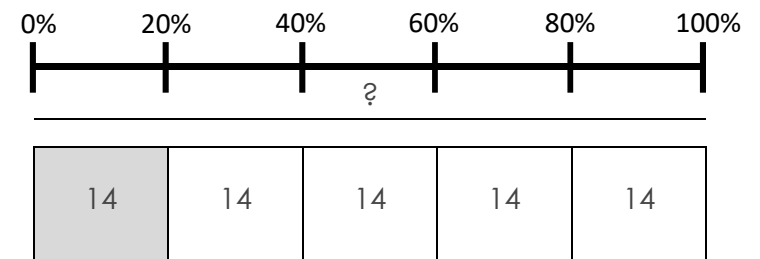
Part: 14 candies

Percent: 20%



If there are 14 candies in 20%, then there are 14 candies in each of the other 20% sections of the diagram. The total number of candies in the bag is the sum of all the quantities:

$$14 + 14 + 14 + 14 + 14 = 70 \text{ or } 14(5) = 70.$$



Thus, there are 70 candies in a full bag.

You Try:

Use one of the methods you have learned to solve the following problems.

- 1) What is 5% of 200?
- 2) 8 is 40% of what number?
- 3) What is 15% of 80?
- 4) 18 is 25% of what number?
- 5) What is 25% of 60?
- 6) 62 is 50% of what number?

Problem Solving with Percents

- 1) Martha put 20% of her paycheck in the bank. If her paycheck was \$150, how much did she put in the bank?
 - a) Should your answer be MORE or LESS than \$150?
 - b) Solution = _____
 - c) Write your answer in a complete sentence:

- 2) Ethan got 90% of the problems correct on a quiz. If he got 27 problems correct, how many problems were on the quiz?
 - a) Should your answer be MORE or LESS than 27?
 - b) Solution = _____
 - c) Write your answer in a complete sentence:

- 3) Whitney bought a pair of jeans that cost \$25. If tax is 5%, how much tax will she pay?
 - a) Should your answer be MORE or LESS than \$25?
 - b) Solution = _____
 - c) Write your answer in a complete sentence:

- 4) Ellis' bill at Red Lobster was \$18.50. If he gives his server a 20% tip, how much tip will he leave?
 - a) Should your answer be MORE or LESS than \$18.50?
 - b) Solution = _____
 - c) Write your answer in a complete sentence:

