

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? **3 people**

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?  
**60 people**

11) At ECMS, about 25% of the 6<sup>th</sup> graders made an A in math. If there are 416 6<sup>th</sup> graders, how many made an A? **104 6<sup>th</sup> graders**

12) Last year, ECMS had 1280 students. If we have 110% of that amount this year, how many students are at ECMS this year? **1408 students**

## Finding the "Whole" when Given the Percent

### Example:

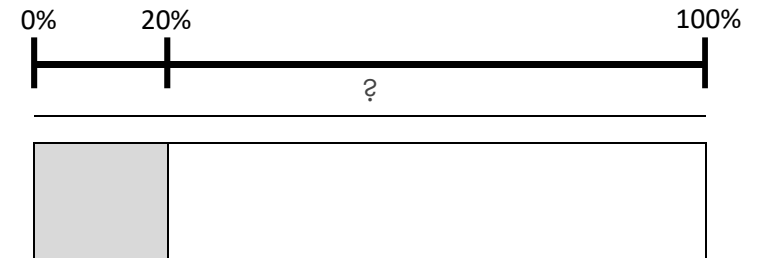
There are 14 candies in a bag that is 20% full. How many candies are in a full bag?

### USE A TAPE DIAGRAM

Whole: Unknown (# of candies in full bag)

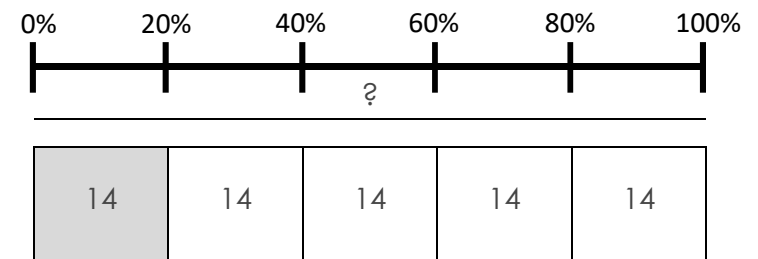
Part: 14 candies

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? **10**    2) 8 is 40% of what number? **20**

3) What is 15% of 80? **12**    4) 18 is 25% of what number? **72**

5) What is 25% of 60? **15**    6) 62 is 50% of what number? **124**

## **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:

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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:

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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:

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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:

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