

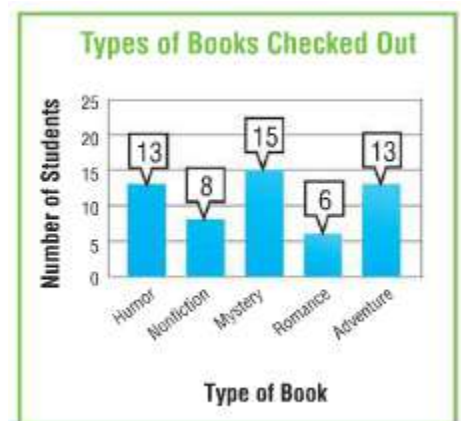
Making Predictions Task

MCC7.SP.1 Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.

1. Luther won 12 of the last 20 video games he played. Suppose Luther plays a total of 60 games with his friends over the next month. Predict how many of these games Luther will win.
2. The probability of Jaden making a free throw is 15%. Predict the number of free throws that he can expect to make if he attempts 40 free throws.
3. A survey of Ms. Smith's 12th grade homeroom said that 7 out of the 30 students are going on a ski trip over winter break. Predict the number of students that are going on a ski trip if there are 150 students in 12th grade.
 - a. What is the population?
 - b. What is the sample?
 - c. How many students are going on the trip in the sample?
 - d. How many students are going on the trip in the population?
4. The table shows the results of a survey of 7th grade students in the lunch line. If there are 245 7th graders in the school, how many can be expected to prefer chocolate milk?

Favorite Drink	
Drink	Students
Chocolate Milk	15
Soda	12
Milk	6
Water	2

5. The school librarian recorded the types of books students checked out on a typical day. Suppose there are 605 students enrolled at the school. Predict the number of students that prefer humor books. Compare this to the number of students at the school who prefer nonfiction.



Match each situation with the appropriate equation or proportion that could be used to solve it.

6. 27 MP3s is what percent of 238 MP3s?

A. $n = 27 \cdot 2.38$

7. 238% of 27 is what number?

B. $\frac{27}{100} = \frac{p}{238}$

8. 27% of MP3 owners download music weekly.

C. $\frac{27}{238} = \frac{n}{100}$

Predict how many MP3 owners out of 238 owners download music weekly.

9. A survey found that 80% of teens enjoy going to the movies in their free time. Out of 5,200 teens, predict how many said they do NOT enjoy going to the movies in their free time.

10. Yesterday, a bakery baked 54 loaves of bread in 20 minutes. Today, the bakery needs to bake 375 loaves of bread. At this rate, predict how long it will take to bake the bread.