

Lesson 4 Skills Practice

Simulations

1. **QUIZZES** Describe a situation that you could use to answer a 15-question quiz, if five questions are true or false questions. You toss a coin for the true or false 5 times.

2. **PRIZES** During the grand opening of a fast food restaurant, every person that comes to the restaurant receives a prize. There are 6 different prizes. Describe a model that could be used to simulate which prizes the first 75 customers will receive.

You roll a cube 1 to 6 times which can be represented in each prize. Roll the cube 75 times and copy the results to show the 75 customers who got a surprise.

3. **STUDENT COUNCIL** Mrs. Corley wants to randomly choose 3 students to represent her homeroom on student council. There are 30 students in the class. Describe a model that could be used to simulate this situation. Spinning the spinner that's split into 5 sections, and rolling a cube could have 30 outcomes.

4. **SALES** A music store has determined that 65% of customers who buy a compact disc buy a pop music compact disc. Describe a model that you could use to simulate a CD purchase. $65\% = 65/100 = 13/20$. You use 13 marbles to represent pop music.

5. **SANDWICHES** A sandwich shop offers 6 different types of sandwiches on either white or wheat bread. If each type of sandwich and bread is equally likely to be chosen by a customer, describe a model that could be used to simulate the orders of the next 10 customers. There are 6 types of sandwiches, and two types of bread.