

Skills

● **Lesson 10-1** Find each experimental probability.

Suppose you write North, South, East, and West on separate pieces of paper and put them in a hat. You select a piece of paper at random, record the result, replace the paper, and select again. The results of 20 trials are shown.

Location	Number Selected
North	7
South	5
East	3
West	5

- $P(\text{West})$
- $P(\text{South or East})$
- $P(\text{not North})$
- What is the theoretical probability of selecting North?
- Which event or events have the same experimental probability as the theoretical probability?

● **Lesson 10-2** The table shows the results from a survey of 50 students at Green Middle School. The school has 670 students.

- Predict how many students in the school enjoy music class the most.
- About how many students in the school would choose art class as their favorite elective?
- Predict how many students in the school like either wood shop or graphic design class the best.

Favorite Elective Class	Number of Students
Music	12
Art	8
Woodshop	7
Graphic Design	23

● **Lesson 10-3** Determine whether each question is biased or not. Explain.

- What is your favorite food?
- How much homework do you do each night?

● **Lesson 10-4** Find each probability. A spinner is divided into 26 equal sections. Each section is labeled with a letter of the alphabet. Suppose you spin the spinner once and then roll a number cube. Assume Y is a consonant.

- $P(M, \text{ then } 2)$
- $P(C, \text{ then prime})$
- $P(\text{vowel, then odd})$
- $P(\text{consonant, then } 5)$

● **Lessons 10-5 and 10-6** Simplify each expression.

- $4!$
- $8!$
- ${}_6P_3$
- ${}_{17}P_2$
- ${}_{24}P_4$
- ${}_{18}P_5$
- ${}_7C_4$
- ${}_{16}C_2$
- ${}_{19}C_7$
- ${}_{24}C_2$
- You need to choose a team of 5 players from 15 potential players. In how many ways can you do this?