CHECKING YOUR PROGRESS: A SELF-TEST

1. An unbiased die is rolled 9 times, coming up 6 each time. What is the probability of its coming up 6 on the 10th roll?
   a. 1/6
   b. less than 1/6
   c. more than 1/6
   d. none of the above
2. The probability of an event given that another event has already occurred is called which of the following?
   a. gambler's fallacy
   b. the addition rule of probability
   c. the multiplication rule of probability
   d. conditional probability
3. Your psychology instructor says that it is impossible for you to locate accurately sounds in your median plane (the plane that splits you down the middle) if you are blindfolded. To prove her point, you are blindfolded, and a clacker is used to make a brief sound either directly in front of you, directly overhead, or directly behind.

   a. What is the probability of correctly picking the location on the first presentation?

   b. What is the probability of picking the correct location by chance on three consecutive trials?

4. A fruit basket contains 1 apple, 2 oranges, and 3 large plums. *With* replacement, what is the probability of selecting, on three consecutive draws blindfolded, the following?

   a. 3 apples

   b. 2 oranges and 1 plum, in that order

   c. 2 oranges and 1 plum, in any order

5. Using the same basket from Problem 4, what is the probability of selecting, *without* replacement, the following on three consecutive blindfolded draws?

   a. an apple, an orange, and a plum

   b. 2 oranges and 1 plum, in that order

   c. 3 plums

6. A study of personality type (intuition vs. sensing) and the probability of holding student office was made. The results were as follows:

Personality Type

		Sensing	Intuition	Total
	Yes	.23	.15	.38
Held Office	No	.37	.25	.62
	Total	.60	.40	1.00

   a. What is the probability that a student has held some office?

   b. Given that a student is an intuitive type, what is the probability that he or she has held office?

   c. Does this added information about personality type aid in predicting whether the student has held office?

   d. In this problem, is personality type independent of holding office? Explain.