Name _____ Date _____

LESSON 6.2

Practice B

For use with the lesson "Construct and Interpret Binomial Distributions"

Calculate the probability of tossing a coin 25 times and getting the given number of heads.

1. 2 **2.** 10 **3.** 18 **4.** 25

Calculate the probability of randomly guessing the given number of correct answers on a 20-question multiple choice exam that has choices A, B, C, and D for each question.

5. 10 **6.** 8 **7.** 18 **8.** 5

Calculate the probability of *k* successes for a binomial experiment consisting of *n* trials with probability *p* of success on each trial.

9. $k \geq 4, n = 8, p = 0.16$

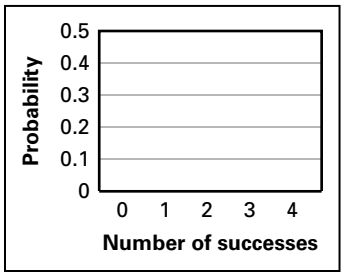
10. $k \leq 5, n = 10, p = 0.45$

11. $k \geq 3, n = 5, p = 0.34$

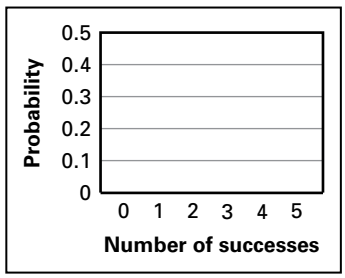
12. $k \leq 8, n = 12, p = 0.60$

A binomial experiment consists of *n* trials with probability *p* of success on each trial. Draw a histogram of the binomial distribution that shows the probability of exactly *k* successes. *Describe* the distribution as either *symmetric* or *skewed*. Then find the most likely number of successes.

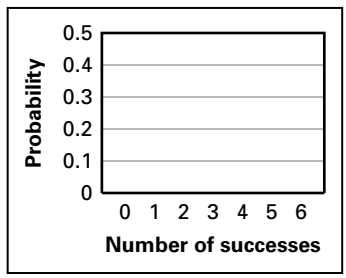
13. $n = 4, p = 0.45$



14. $n = 5, p = 0.75$



15. $n = 6, p = 0.83$



In Exercises 16 and 17, use the following information.

Puppies A registered golden retriever has a litter of 11 puppies. Assume that the probability of a puppy being male is 0.5.

16. Because the owner of the dog can expect to get more money for a male puppy, what is the most likely number of males in the litter?

17. What is the probability at least 7 of the puppies will be male?