Name _____ Date _____ Class _____

LESSON 13-1

Theoretical Probability of Simple Events

Practice and Problem Solving: C

HOMEWORK
EMORY / BINGHAMTO

Use the information below to answer 1–3.

Three students are playing a video game. Each player is randomly assigned a character from a collection of characters that includes 5 blue, 6 green, and 3 red characters. After each character is picked, it is not replaced in the collection.

1. What is the probability that the first player does **not** get a blue character?

_____

2. The first player gets a blue character. What is the probability that the second player also gets a blue character?

_____

3. Both the first and second players get blue characters. What is the probability that the third player does **not** get a blue character?

_____

Fill in the blank.

4. $P = 0.4$
   Total outcomes: 50
   Number of events: _____

5. Number of events: 75
   $P = 0.3$
   Total outcomes: _____

Use the information below to answer 6–9.

On its first day, a neighborhood pet show includes 5 rabbits, 7 cats, 8 dogs, and 4 hamsters. Each pet has its own petting station. Children who wish to pet the animals are randomly assigned to a station.

6. How many cats would need to be added on the second day to make the probability of picking a cat from the group at least one half?

_____

7. Assume that the cats in question 6 were added on the second day. What is the probability of picking a dog from the new group?

_____

8. On the third day, no more animals were added. What is the probability of picking a rabbit or a hamster on the third day of the show?

_____

9. What is the probability of **not** picking a goldfish on the third day of the show? Explain.

_____