

Sections 6.1-6.5 Worksheet
More Probability

Name _____

1. Suppose a die is rolled 400 times and the number of times a 5 is rolled is 60. Calculate the empirical probability of rolling a 5 based on this data.
2. The last 40 violent crimes committed in Tarrytown were two homicides, 25 robberies, and 13 assaults. What is the empirical probability that the next violent crime committed in Tarrytown will be a robbery?
3. A sack contains 50 jelly beans. 26 of them are green, 14 are white, and 10 are red. What is the probability that a jelly bean selected at random will not be red?
4. One thousand tickets are sold for a raffle.
 - a. If you purchase a ticket, find your odds against winning.
 - b. If you purchase 10 tickets, find your odds against winning.
 - c. If you purchase 10 tickets, what is the probability that you will win?
5. A penny is tossed and a die is rolled. What is the probability of tossing a tails and rolling a 6?
6. A penny is tossed and a die is rolled. What is the probability of tossing a head and rolling a number less than 5?
7. A card is drawn from a standard deck of playing cards. What is the probability that the card is either a queen or a 9?
8. A card is drawn from a standard deck of 52 cards. What is the probability that the card is either a club or a king?
9. Each question on a two question multiple choice exam has four possible answers, only one of which is correct. Peter picks an answer at random for each. Find the probability he makes a 50 on this quiz because the first question is answered correctly and the second incorrectly.
10. Two balls are to be selected from a bag without replacement. The bag contains one red, one blue, one green, one yellow, and one black ball. How many possible outcomes will there be for this experiment?
11. How many different four-digit numbers can be formed from the digits 0 through 9 if the first digit must be even and cannot be zero?
12. If the probability of an event is 0, what is the probability that this event will *not* occur?