Name: Date: Hour:
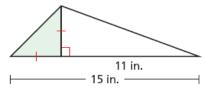
Geometry
WS PC Review (12.1 – 12.4)

1. A CD has 5 upbeat songs and 7 slow songs. What is the probability that a randomly selected song is upbeat?

2. A cooler contains 18 cans: 9 of lemonade, 3 of iced tea, and 6 of cola. Dee selects a can without looking. What is the probability that Dee selects iced tea?

3. Find the probability that a point chosen at random inside the figure shown is in the shaded region.

11 in.

15 in.

4. A number cube is rolled 50 times, and a 2 is rolled 12 times. Find the experimental probability of not rolling a 2.

5. There are 13 green marbles, 8 red marbles, and 12 white marbles in a bag. What is the probability of not selecting a green marble?

6. A 9 cm x 13 cm rectangle has a circle inside of it with a radius of 2 cm. What is the probability that a randomly selected point will be within the circle?

7. A bag contains 25 checkers – 15 red and 10 black. You draw 2 checkers out of the bag. Find each probability.

    a. selecting a red checker, without replacement

    b. selecting a red checker, with replacement

8. You have a standard deck of 52 cards. Find the probability.

    a. A nine, then a face card, then an ace is drawn, with replacement

    b. A red, then an eight is drawn, without replacement

    c. A diamond, then a seven is drawn, without replacement

9. At a clothing store, 75% of the customers buy pants. Only 20% of customers buy pants and a belt. What is the probability that a customer who buys pants also buys a belt?

10. Find each probability.

    a. Rolling a 5 or an odd number on a numbered cube

    b. Lincoln High School has 98 teachers. Of the 42 female teachers, 8 teach math. One – seventh of all the teachers teach math. What is the probability that a teacher is a man or does not teach math?

c. A card is drawn from a deck of 52. What is the probability that the card is a heart or a 6?

d. After a conference, 220 men and 270 women respond to a survey. Of those, 200 men and 230 women say the conference was impactful. What is the probability of randomly selecting a women who said the conference was impactful?

11. In a clothing business, 70% of customers buy a shirt and 25% of those customers also buy a legging. Draw a tree diagram to illustrate this situation. Find the probability of a customer who buys a shirt but does not buy a legging.