SATPREP

Name_____

Assignment: Further Probability

Date_____

Find the probability.

1) There are twelve shirts in your closet, five blue and seven green. You randomly select one to wear on Monday and then a different one on Tuesday. You wear a blue shirt on Monday and a green shirt on Tuesday.

2) A cooler contains thirteen bottles of sports drink: six lemon-lime flavored and seven orange flavored. You randomly grab a bottle and give it to your friend. Then, you randomly grab a bottle for yourself. You and your friend both get lemon-lime.

3) You roll a fair six-sided die. The die shows a two or a three

4) A litter of kittens consists of two gray kittens, two black kittens, and three mixed-color kittens. You randomly pick one kitten. The kitten is gray or mixed-color.

5) A cooler contains twelve bottles of sports drink: three lemon-lime flavored, four orange flavored, and five fruit-punch flavored. You randomly grab a bottle. It is a lemon-lime or an orange.

6) A litter of kittens consists of three gray kittens, two black kittens, and two mixed-color kittens. You randomly pick one kitten. The kitten is gray or mixed-color.

7) You select a card from a standard shuffled deck of 52 cards. You return the card, shuffle, and then select another card. Both times the card is a diamond. (Note that 13 of the 52 cards are diamonds.)

8) You flip a coin and then roll a fair six-sided die. The coin lands tails-up and the die shows an odd number.

9) There are six nickels and seven dimes in your pocket. You randomly pick a coin out of your pocket and place it on a counter. Then you randomly pick another coin. The first coin is a nickel and the second coin is a dime.

10) There are eight nickels and four dimes in your pocket. You randomly pick a coin out of your pocket and place it on a counter. Then you randomly pick another coin. Both coins are nickels.

Answers to Assignment: Further Probability

1) $\frac{35}{132} \approx 0.265$

2) $\frac{5}{26} \approx 0.192$

3) $\frac{1}{3} \approx 0.333$

4) $\frac{5}{7} \approx 0.714$

5) $\frac{7}{12} \approx 0.583$

6) $\frac{5}{7} \approx 0.714$

7) $\frac{1}{16} \approx 0.063$

8) $\frac{1}{4} = 0.25$

9) $\frac{7}{26} \approx 0.269$

10) $\frac{14}{33} \approx 0.424$