Name _____ Date _____ Class _____

LESSON 11-5

Practice A

Probability of Independent and Dependent Events

Decide if each set of events is independent or dependent. Explain your answer.

1. A student spins a spinner and rolls a number cube.

_____

_____

2. A student picks a raffle ticket from a box and then picks a second raffle ticket without replacing the first raffle ticket.

_____

_____

Find the probability of each set of independent events. Choose the letter for the best answer.

3. drawing a black checker from a bag of 6 black checkers and 4 red checkers, replacing it, and drawing another black checker

A $\frac{2}{3}$ C $\frac{2}{5}$

B $\frac{9}{25}$ D $\frac{3}{5}$

4. rolling a six on the first roll of a 1–6 number cube and rolling an odd number on the second roll of the same cube

F $\frac{1}{12}$ H $\frac{1}{6}$

G $\frac{1}{8}$ J $\frac{1}{2}$

5. flipping a tail on a coin and spinning a 5 on a spinner with sections of equal area numbered 1–5

A $\frac{1}{2}$ C $\frac{1}{7}$

B $\frac{1}{5}$ D $\frac{1}{10}$

6. drawing a 1, 2, or 3 from 9 cards numbered 1–9, replacing the card, and drawing a 7, 8, or 9

F $\frac{1}{3}$ H $\frac{1}{9}$

G $\frac{3}{8}$ J $\frac{1}{12}$

Solve.

7. There are 4 black marbles and 2 white marbles in a bag. What is the probability of choosing a black marble, not replacing it, then choosing a white marble?

_____

Name _____ Date _____ Class _____

LESSON 11-5

Practice B

Probability of Independent and Dependent Events

Decide if each set of events is independent or dependent. Explain your answer.

1. A student spins a spinner and chooses a Scrabble® tile

_____

_____

2. A boy chooses a sock from a drawer of socks, then chooses a second sock without replacing the first.

_____

_____

3. A student picks a raffle ticket from a box, replaces the ticket, then picks a second raffle ticket.

_____

_____

Find the probability of each set of independent events.

4. drawing a red checker from a bag of 9 black checkers and 6 red checkers, replacing it, and drawing another red checker

_____

5. drawing a black checker from a bag of 9 black checkers and 6 red checkers, replacing it, and drawing a red checker

_____

6. rolling a 1, 2, or 3 on the first roll of a 1–6 number cube and rolling a 4, 5, or 6 on the second roll of the same cube

_____

Solve.

7. Randy has 4 pennies, 2 nickels, and 3 dimes in his pocket. If he randomly chooses 2 coins, what is the probability that both are dimes?

_____

NAME _____

INTERACTIVE ALG/GEOM II Probability

Be Sure to Show ALL Your Work!!!

Special Note: Reduce all fractions to lowest terms.

1. **A card is chosen at random from a deck of 52 cards. It is then *replaced* and a second card is chosen. What is the probability of choosing a Jack first and a 3 second?**

2. **What is the probability that from a normal 52 card deck, you randomly draw a 3, and then *without replacing* the 3, you draw the Queen of Hearts?**

3. **A jar contains 6 red balls, 3 green balls, 5 white balls and 7 yellow balls. Two balls are chosen from the jar, with replacement. What is the probability that both balls chosen are green?**

4. **A box contains a penny, a nickel, and a dime. Find the probability of choosing a dime first and then, without replacing the dime, choosing a penny.**

5. **A coin is tossed and a single 6-sided die is rolled. Find the probability of landing on the head side of the coin and rolling 3 on the die.**

6. **The teacher of a class that contains 12 boys and 16 girls needs to pick two volunteers. She randomly selects one student, and then selects another student from the class. Find the probability that**

   a. **she chooses a girl first, then a boy**

   b. **she chooses two boys**