Name:_____ Date: _____

Teacher:_____ Basic Algebra

Review for Probability Quiz

Topics:

- Sample Space
- Tree Diagrams
- Possible outcomes (Counting Principle)
- Probability of one event
- Probability of Multiple Events
    - Dependent & Independent
- Experimental vs Theoretical Probability

Quiz Format:

- 7

1. The party registration of the voters in Jonesville is shown in the table below.

Registered Voters in Jonesville	
Party Registration	**Number of Voters Registered**
Democrat	6,000
Republican	5,300
Independent	3,700

If one of the registered Jonesville voters is selected at random, what is the probability that the person selected is *not* a Democrat?

A) 0.600 B) 0.333

C) 0.667 D) 0.400

2. How many different outfits consisting of a hat, a pair of slacks, and a sweater can be made from two hats, three pairs of slacks, and four sweaters?

A) 29 B) 12

C) 24 D) 9

3. Cole's Ice Cream Stand serves sixteen different flavors of ice cream, three types of syrup, and seven types of sprinkles. If an ice cream sundae consists of one flavor of ice cream, one type of syrup, and one type of sprinkles, how many different ice cream sundaes can Cole serve?

A) 336 B) 10,836

C) 3 D) 26

4. Shelton places one tile for each letter of the alphabet in a bag. He mixes them up and selects one without looking. What is the probability that the tile contains one of the letters in the word PHONE?

A) $\frac{1}{26}$ B) $\frac{5}{26}$

C) $\frac{1}{5}$ D) $\frac{3}{13}$

5. A card is drawn at random form a set of cards numbered 1 to 10. How many possible outcomes are there for the event of drawing a number greater than 4?

A) 4 B) 5

C) 6 D) 10

6. What is the probability that a letter chosen at random from the word ALGEBRA will be a vowel?

A) $\frac{1}{7}$ B) $\frac{3}{7}$

C) $\frac{2}{7}$ D) $\frac{1}{3}$

7. A fair coin is thrown in the air four times. If the coin lands with the head up on the first three tosses, what is the probability that the coin will land with the head up on the fourth toss.

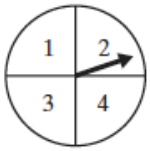
A) 0

B) $\frac{1}{8}$

C) $\frac{1}{2}$

D) $\frac{1}{16}$

8. Four students conducted an experiment in which they spun a spinner as shown. They recorded the number of times the spinner landed on an even number. The results are shown in the table. Which student's results came closest to what would be expected?



Student	Number of Events	Number of Spins
Adani	8	10
Benjamin	14	30
Crete	7	20
David	29	50

9. Describe an event for which the probability is 1 and another which is 0.

10. A fair six-sided die is tossed.

a. What is the sample space?

b. Consider the event of rolling a number less than or equal to 2.
List the possible outcomes for this event.

c. Find the probability of rolling a number less than or equal to 2.