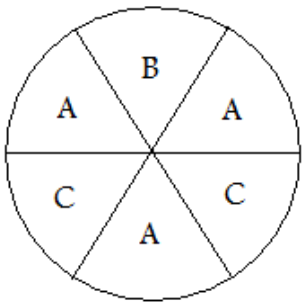
NAME: Period: SCORE:_____/_____=_____%=_____

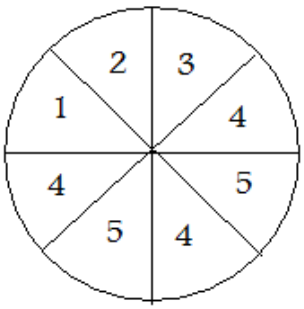
HW 9-3

Int 1 **Compound Probability** **Unit 9**

Refer to the spinners on the right to find the probability of each outcome. Write your answers as SIMPLIFIED fractions.

1) P(A and 1)





2) P(C and 2)

3) P(B and 4)

4) P(A and 3)

5) P(C and 4)

6) P(B and 5)

7) P(a consonant and an odd number)

8) P(a vowel and a 5)

9) P(a consonant and a prime number)

10) P(a vowel and a number less than 4)

In a bag, there are 5 red marbles, 6 white marbles, 3 blue marbles, and 7 green marbles. Once a marble is selected, **it is replaced**. Find the probability of each outcome. Write your answers as fractions.

11) a blue marble and then a green marble

12) a blue marble and then a red marble

13) a red marble three times in a row

14) P(white, then blue, then white)

In a bag, there are 5 red marbles, 6 white marbles, 3 blue marbles, and 7 green marbles. Once a marble is selected, **it is NOT replaced**. Find the probability of each outcome. Write your answers as fractions.

15) 2 red marbles in a row

16) 2 green marbles in a row

17) P(blue, then red, then green)

18) P(blue, then blue, then blue)

For each game, find the indicated probability.

19) To win a carnival prize, you need to choose one of 3 doors labeled 1 through 3. Then you need to chose a red, yellow, or blue box behind each door. What is probability that the prize is in the blue or yellow box behind door 2?

Mr. and Mrs. Romero are expecting triplets. Suppose the chances of each child being a boy is equally likely. Write your answers as SIMPLIFIED fractions.

20) Create a tree diagram to see all possible combinations of the genders of their triplets.

21) Find the P(all three children will be boys)

22) Find the P(at least one is a boy and one is a girl)

23) Find the P(two boys and one girl)

24) Find the P(at least two girls)

EXTRA CREDIT: Write your answers as simplified fractions.

25) Alana tosses 2 number cubes. She wins if she rolls doubles of any number. Find the probability that she will win.

26) Ming rolls a number cube, tosses a coin and chooses a card from two cards marked A or B. If an even number and heads appears, Ming wins no matter which cards is chosen. Otherwise Lashonda wins. Find P(Ming wins).