

I'm Not So Sure Anymore

Activity 2 Additional Problems

Name _____

Date _____ Hr _____

1. What is the theoretical probability of matching 5 numbers from a set of 8?

2. Find the theoretical probability of matching 4 numbers from a list of 15 possibilities.

3. Make a sample space below for rolling a six-sided die and flipping a coin simultaneously.
 - a. What is the probability of getting a 5 and tails?

 - b. Odd number and heads?

 - c. 1,2, or 5 and tails?

 - d. Even number and either tails or heads?

 - e. Any number and tails?

 - f. Any number and either heads or tails?

4.
 - a. What is the sample space for rolling a fair six-sided die?

 - b. What is the theoretical probability of rolling each of the following?
 1. a three? _____
 2. a six? _____
 3. an even number? _____
 4. an even or odd number? _____
 5. an even and an odd number? _____

5. a. What is the sample space for rolling a pair of six sided dice?

b. What is the theoretical probability of each of the following?

1. a three and a three? _____ 2. a four and a six? _____

3. a sum of 7? _____ 4. a sum of 9 or greater? _____

6.

<i>Percentage</i>	<i>Decimal</i>	<i>Fraction</i>
		$\frac{1}{3}$
	.15	
5%		
		$\frac{4}{7}$

7. Another popular lottery game involves picking 5 numbers from 1 to 40 on a white panel and one number from 1 to 35 on a black panel. Lottery officials draw five balls from a container of 35 white balls and one ball from a container of 35 black balls. To win the lottery, players must match all 5 white balls and the black ball.

a) Determine the size of the sample space when selecting five numbers from a set of 35.

b) Determine the size of the sample space for selecting one number from a set of 35.

c) Determine the size of the sample space for this game.

d) Determine the theoretical probability of matching the five white balls and one black ball.