

## Rolling Dice Probability Activity

Name \_\_\_\_\_

1. List all of the possible outcomes if you roll the first die.

\_\_\_\_\_

2. List all of the possible outcomes for the second die.

\_\_\_\_\_

3. List all of the possible outcomes if you roll the two dice at the same time.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Tell if each event is certain, likely, unlikely, impossible, or equally likely.

1. The sum of the dice being greater than 12: \_\_\_\_\_
2. Rolling two twos or rolling two fours: \_\_\_\_\_
3. The sum of the dice being between 2 and 10: \_\_\_\_\_
4. Rolling a 1-6 on the first die and 1-6 on the second: \_\_\_\_\_
5. The sum of the two dice being less than 4: \_\_\_\_\_

What is the probability of rolling...?

1 and 1	
Both even numbers	
A 2 and a 3	
Both odd numbers	
A number that adds up to 7	

Now, roll both dice together 20 times. Record the outcomes in the table below.

Event	Die 1	Die 2	Sum
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

What was the most common outcome? Why do you think this is? \_\_\_\_\_

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Which one was the least common? Why do you think this is? \_\_\_\_\_

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What outcomes were certain? Why? \_\_\_\_\_

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What outcomes were impossible? Why? \_\_\_\_\_

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Explain how you would find out the number of possible outcomes if you were given two dice with eight sides. Then do the math. What is the answer? \_\_\_\_\_

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When might people use probabilities and predicting outcomes? \_\_\_\_\_

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