

## Yikes!!!!

2	3	4	5	6	7	8	9	10	11	12
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### Directions

1. Take 12 counters (pennies, beans, washers, Cheerios etc, ) and place them under the numbers listed above. You can place them all under one number, or spread them out however you like.
2. Roll a pair of dice,( but Mrs Behrend I don't have any dice! Look in your board games or go knock on your neighbor's door. Make your own out of a cereal box, aka problem solving) and then call out the sum of the two numbers rolled. If you have a counter underneath the number, take it off the piece of paper and place it next to you on the desk.

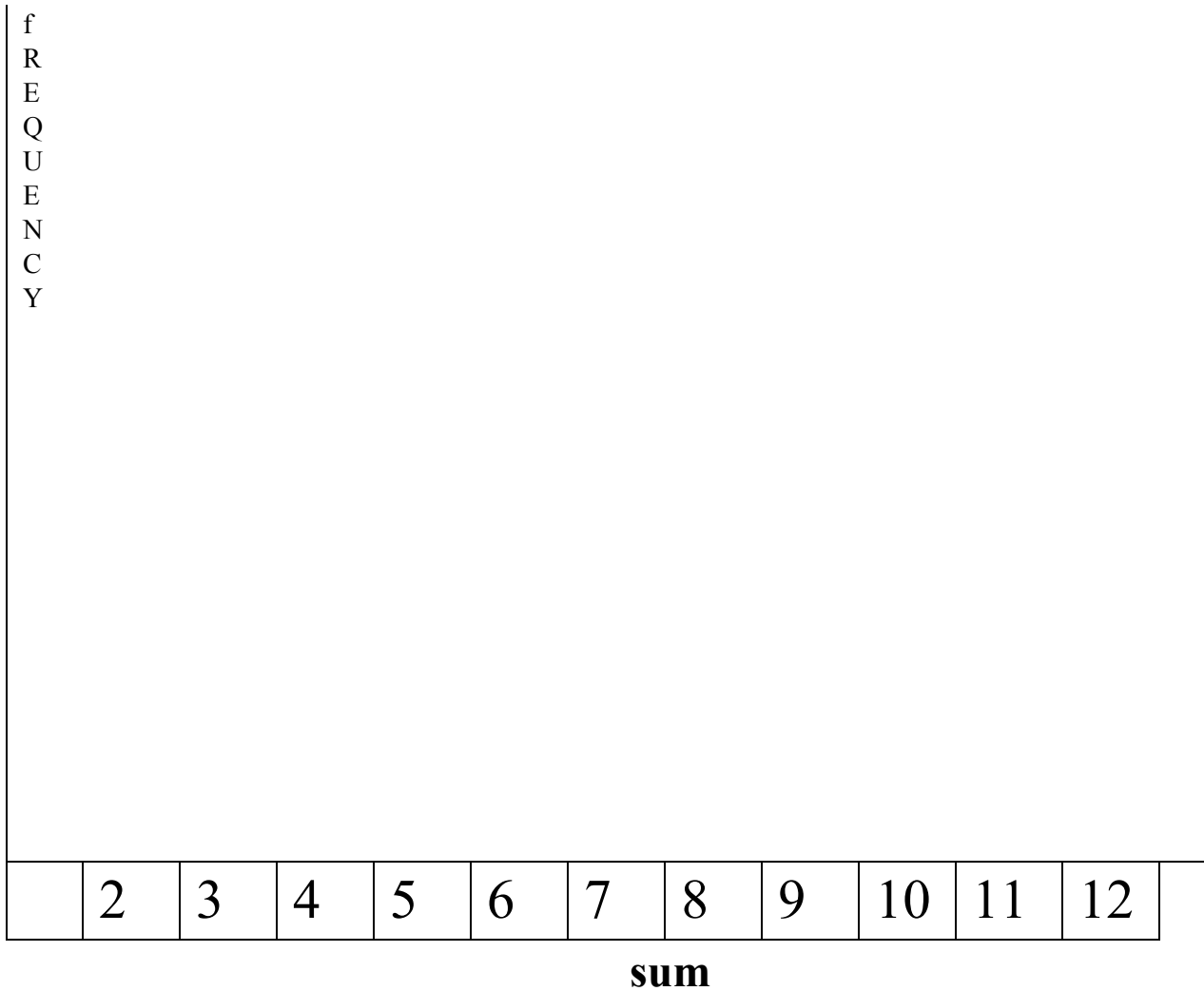
3. The first person to remove all their counters wins! You have to shout Yikes! if you win. But we all know Rachelle will shout Yikes! At the beginning. Keep track of how many rolls it took you. Play the game 3 times. You can reposition your counters each time if you think you will be able to win in less rolls. Email me when you are done with the 3 games and we will determine the winner!

### Probability Worksheet

Fill in the chart. Find sum of the number in the **column** + number in the **row**:  
 (A few boxes have been filled in for you as an example)

	1	2	3	4	5	6
1	2					
2						
3						
4						
5		7				
6						12

Now make a bar chart of the sum (x-axis) vs. the frequency of each sum (y-axis): do a different color for each game. Do the bar chart on the computer or by hand



### Evaluation Questions

1. Based on your graph, which outcome is most likely? What is the probability of rolling the dice and getting that sum?
2. During the actual game, which 3 outcomes appeared most often?

3. Describe the way your strategy changed over the course of the game:

4. After playing this game, what does probability mean to you?  
If you want to win, should you arrange your counters to match your graph?