

Theoretical and Experimental Probability Combinations with Two Dice

Today you will look at the possible sums when you roll two dice, one red and one green. The lowest possible sum is 2, when you roll (red 1 and green 1). The highest possible sum is 12 when you roll (red 6 and green 6). Use the table below to organize all the possible sums with two dice. Write down the ways to get that sum [**REMEMBER, a red 1 and green 2 is different than a red 2 and a green 1**] and how many ways you found to get that sum. After you find the total ways, write down the Probability of getting that sum.

Sum	Combinations to get this total (number on the red die – number on the green die)	Number of ways to get this sum	Probability of this sum
2	(1 – 1)	1	
3	(1 – 2), (2 – 1)	2	
4			
5			
6			
7			
8			
9			
10			
11			
12	(6 – 6)	1	
Total of this column ⇨			

Now that you have completed the Probability table, use the link in the class agenda to roll two virtual dice 100 times and tally the number of times each total comes up.

Total	Tally marks from rolling virtual dice 100 times
1	
2	
3	
4	
5	
6	

Total	Tally marks from rolling virtual dice 100 times
7	
8	
9	
10	
11	
12	