

# Chance Experiment

When two dice are rolled, what is the most likely sum of the numbers that appear?



1. Students predict what they think the most rolled total will be.
2. Roll two dice 50 times and record the total for each roll on a graph.

---

2      3      4      5      6      7      8      9      10      11      12

The only possible totals when rolling two dice are 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12.

Repeat the experiment and graph the results.



Discuss the results and the student's guesses.

Compare the results from both experiments.

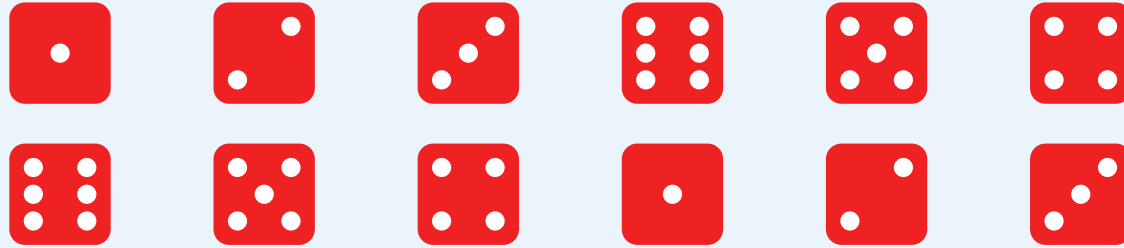
Which totals occurred the most number of times?

The table shows the percentage chance for each total when rolling two dice.

Total	Chance
2	2.78%
3	5.56%
4	8.33%
5	11.11%
6	13.89%
7	16.67%
8	13.89%
9	11.11%
10	8.33%
11	5.56%
12	2.78%

**What is the reason behind seven being the most likely sum when rolling two dice?**

Seven is the most probable total because there are more ways to make seven when rolling two dice.



There are thirty-six possible combinations when rolling two dice and six ways to make seven!

There is only one way to roll a total of



or



So rolling one or twelve are the least likely totals.