

Sums and Whiskers



Complete the addition table below with the correct sums representing the rolling of two number cubes.

+	1	2	3	4	5	6
1						
2						
3						
4						
5						
6						

Part 1: Calculate the theoretical probabilities for each sum. Write your answer as a fraction and a percent.

Sum of 1 _____ Sum of 7 _____

Sum of 2 _____ Sum of 8 _____

Sum of 3 _____ Sum of 9 _____

Sum of 4 _____ Sum of 10 _____

Sum of 5 _____ Sum of 11 _____

Sum of 6 _____ Sum of 12 _____

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Part 2: Roll two number cubes 25 times and record the sums of the faces. Organize your data in a frequency table or line plot.

Part 3: Calculate the experimental probabilities for each sum. Write your answer as a fraction and a percent.

Sum of 1 _____ Sum of 7 _____

Sum of 2 _____ Sum of 8 _____

Sum of 3 _____ Sum of 9 _____

Sum of 4 _____ Sum of 10 _____

Sum of 5 _____ Sum of 11 _____

Sum of 6 _____ Sum of 12 _____

How do your experimental probabilities compare to the theoretical probabilities?

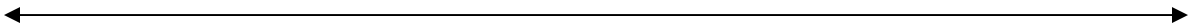
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Part 4: Using your 25 sums, find the measures of center (mean, median, and mode).

Mean _____ Median _____ Mode _____

How does this data relate to the theoretical probabilities?

Create a box-and-whisker plot using your 25 sums.



What does the box-and-whisker plot tell you?

How does the data represented on the box-and-whisker plot relate to the theoretical probabilities?