Creating a Probability Model

Let’s start with one six-sided die.

What are the possible numbers that you could roll? Please draw out all of the options.

What would be the probability of rolling a 1?

What would be the probability of rolling a 2?

What would be the probability of rolling a 3?

What would be the probability of rolling a 4?

What would be the probability of rolling a 5?

What would be the probability of rolling a 6?

If we put all of these probabilities together, we have created a probability model for rolling one six-sided die.

What about if we roll two dice? How many outcomes do you think there will be?

Draw them below please:







If we found the probabilities of rolling a sum of 2 – 12, we could create another probability model for the probability of the sum of rolling two dice.

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With this probability model we can determine theoretical probabilities.

1. What would be the probability of rolling a sum of 2 or 3?
2. What would be the probability of rolling a sum of 1?
3. What would be the probability of rolling a sum of 4 or 12?
4. Which number has the greatest probability of appearing? Explain why.