## Sample space

A normal die has 6 sides and each side has an equally likely chance of occurring - $\frac{1}{6}$.

What if we are working with two dice?

1. Fill in the table to show all of the different combinations when rolling two dice.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | 1,1 |  |  |  |  |  |
| 2 |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |

1. If we add the two dice together, what is the probability of each total?

|  |  |  |
| --- | --- | --- |
| Total to roll | Ways to get the total | Probability of rolling the total |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |
| 6 |  |  |
| 7 |  |  |
| 8 |  |  |
| 9 |  |  |
| 10 |  |  |
| 11 |  |  |
| 12 |  |  |

1. What if we subtracted the numbers? Fill in the table to show the totals and the probability of each

|  |  |  |
| --- | --- | --- |
| Total to roll | Ways to get the total | Probability of rolling the total |
|  |  |  |
|  |  |  |
|  |  |  |
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