Statistics and Probability

Activity 4 Assessment

Determining the Probability of Events

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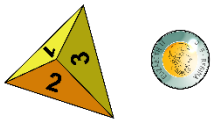
Identifies the sample space for two independent events



	H	T
1	1, H	1, T
2	2, H	2, T
3	3, H	3, T
4	4, H	4, T

The sample space is:
1, H; 2, H; 3, H; 4, H; 1, T; 2, T; 3, T; 4, T

Determines the probability of two independent events using the sample space

	H	T
1	1, H	1, T
2	2, H	2, T
3	3, H	3, T
4	4, H	4, T

The theoretical probability of 2, H is:
$\frac{1}{8}$, or 0.125, or 12.5%

Determines the probability of two independent events using multiplication

The probability of rolling 2 is $\frac{1}{4}$.

The probability of tossing H is $\frac{1}{2}$.

So, the probability of the event 2, H is:

$\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$

Determines the probability of three independent events

The probability of the event: rolling 2, tossing tails, and landing on green is:

$\frac{1}{4} \times \frac{1}{3} \times \frac{1}{2} = \frac{1}{24}$

Observations/Documentation