# Activity 8 Assessment
Determining the Probability of Three Independent Events

Determining the Probability of Three Independent Events

Identifies the sample space for two independent events	Determines the probability of two independent events using the sample space	Determines the probability of two independent events using multiplication	Determines the probability of three independent events

Identifies the sample space for two independent events
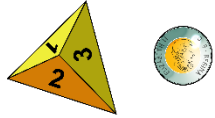
	H	T
1	1, H	1, T
2	2, H	2, T
3	3, H	3, T
4	4, H	4, T

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