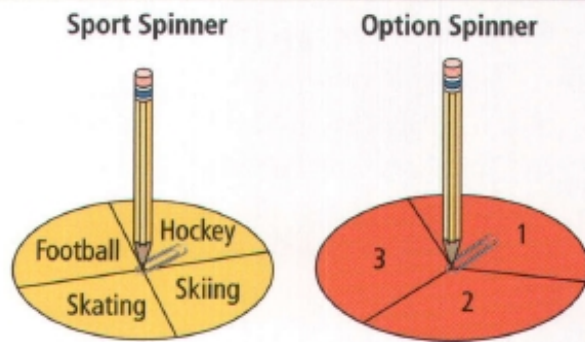


More on Predicted Probabilities

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In this game of Outdoor Olympics, you spin the Sport Spinner and then the Option Spinner. How many possible outcomes are there?



	Option Legend		
	1	2	3
Hockey	Forward	Defence	Goalie
Skiing	Cross-country	Downhill	Snowboarding
Skating	Speed	Figure	Inline
Football	Receiver	Kicker	Quarterback

How can you use outcomes to find predicted probabilities?

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Example 1: Find Predicted Probability

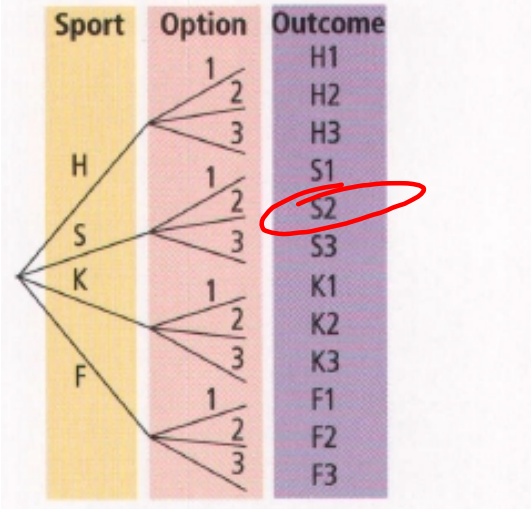
What is the predicted probability of spinning skiing and downhill in the game Outdoor Olympics?

Method 1: Use a Table

		Option Spinner		
		1	2	3
Sport Spinner	Hockey	H, 1	H, 2	H, 3
	Skiing	S, 1	S, 2	S, 3
	Skating	K, 1	K, 2	K, 3
	Football	F, 1	F, 2	F, 3

$$P(S, 2) = \frac{1}{12}$$

Method 2: Use a Tree Diagram



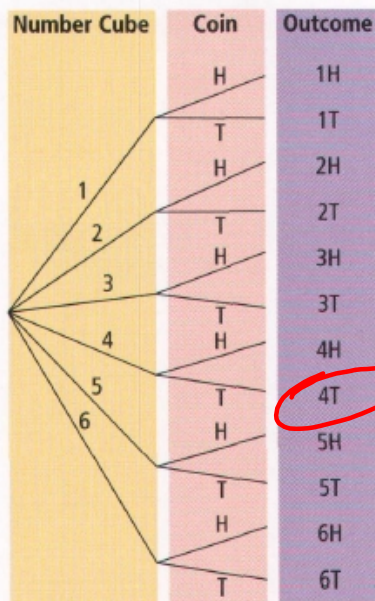
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Example 2: State the Predicted Probability

A number cube is rolled and a coin is flipped. What is the predicted probability of rolling a 4 and tossing tails?



Solution



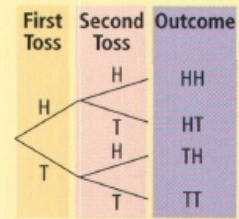
$$P(4T) = \frac{1}{12}$$

12 total outcomes
 (6 x 2)
 outcomes on cube x outcomes on coin

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Key Ideas

- Outcome organizers such as tree diagrams and tables help you find predicted probabilities.
- Tables and tree diagrams show all the possible outcomes. For example, there are four possible outcomes from tossing a coin twice. The probability of each outcome is $\frac{1}{4}$.
- Favourable outcomes can be shaded in a table of outcomes. The shaded area represents the probability.
The probability of tossing tails and tails is $\frac{1}{4}$.



		Second Toss	
		Heads (H)	Tails (T)
First Toss	Heads (H)	H, H	H, T
	Tails (T)	T, H	T, T

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