

# PROBABILITIES OF COMPOUND EVENTS

You can find the **probability of compound events** in the same way you find the probability of simple events! Write it as a fraction with the number of favorable outcomes over the number of possible outcomes in the sample space.

## Let's try it!

You flip a coin twice. What is the probability you get tails both times?



Making a table is one way to determine all of the possible outcomes in the sample space.

	Heads (H)	Tails (T)
Heads (H)	H, H	H, T
Tails (T)	T, H	T, T

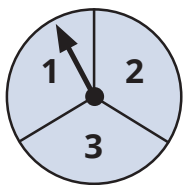
The table shows the 4 outcomes in the sample space. The outcome H, T means you get heads on the first flip and tails on the second flip.

There is 1 favorable outcome: T, T.

So, the probability of getting two tails when you flip a coin twice is  $\frac{1}{4}$ .

Find each probability by first determining the sample space. Use a table, tree diagram, or organized list to help you. Write each probability as a simplified fraction.

- 1) Owen spins the spinner below twice. What is the probability that he lands on 1 and then 3?



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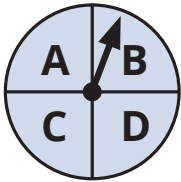
- 2) Tanesha flips a coin and then rolls a six-sided die. What is the probability that the coin lands on heads and the die lands on 4?

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Keep going! Find each probability by first determining the sample space. Use a table, tree diagram, or organized list to help you. Write each probability as a simplified fraction.

- 3) Sabrina spins the spinner below and then rolls a six-sided die. What is the probability that the spinner lands on B and the die lands on an even number?



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- 4) Kai is playing a game where he randomly picks one tile from each of the bags below. What is the probability that Kai picks a vowel and a number greater than 1?



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- 5) Ava rolls a six-sided die twice. What is the probability she rolls two odd numbers?

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