

The Power of Probability

If you flip two coins, what is the probability that both coins will land on heads?

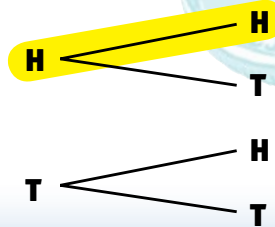
Probability is the likelihood of an event occurring. It can be expressed as a fraction, a decimal, or a percentage between 0% and 100%.

Step 1 Select one of these solution methods:

Make a Table **OR** Make a Tree Diagram **OR** Use the Formula for Compound Events:

	H	T
H	HH	HT
T	TH	TT

H = Heads T = Tails



$$P(A \text{ and } B) = P(A) \cdot P(B)$$

$$P(\text{H and H}) = P(H) \cdot P(H)$$

$$P(\text{H and H}) = \frac{1}{2} \cdot \frac{1}{2}$$

Step 2 Calculate the answer:

There are four outcomes and one is favorable, so the probability is one in four that both coins will land on heads.

$$\frac{1}{2} \cdot \frac{1}{2} = \frac{1}{4}$$

Step 3 Express your answer:

Use a fraction (in lowest terms), decimal, or percentage.

$$\frac{1}{4} = 0.25 = 25\%$$

Test your probability skills at:
www.actuarialfoundation.org/probabilitychallenge

