

Probability Investigation: Coins

You will need **either:**

Six coins

or:

an online simulation like www.random.org/coins (see below)

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Coin Flipper

This form allows you to flip virtual coins. The randomness comes from atmospheric noise, which for many purposes is better than the pseudo-random number algorithms typically used in computer programs.

Flip virtual coin(s) of type

Flip Coin(s)

Reset Form

1. Throw your six coins all together, 16 separate times, and count the *number of tails* for each throw.

For example, if your coins show T, T, H, T, H, T, just write down **4**.

2. Enter your data in the table below:

Throw Number	Number of tails:
Throw 1	
Throw 2	
Throw 3	
Throw 4	
Throw 5	
Throw 6	
Throw 7	
Throw 8	
Throw 9	
Throw 10	
Throw 11	
Throw 12	
Throw 13	
Throw 14	
Throw 15	
Throw 16	

3. Complete the frequency table:

Eg, if 3 of your throws had 4 tails, you would write '3' next to '4 tails.'

Number of tails:	Frequency:
0 tails	
1 tail	
2 tails	
3 tails	
4 tails	
5 tails	
6 tails	

4. What number of tails was the *most common*?

5. What number of tails was the *least common*?

4. Getting 1 tail is actually six times more likely than getting 0 tails.

Why do you think this is?