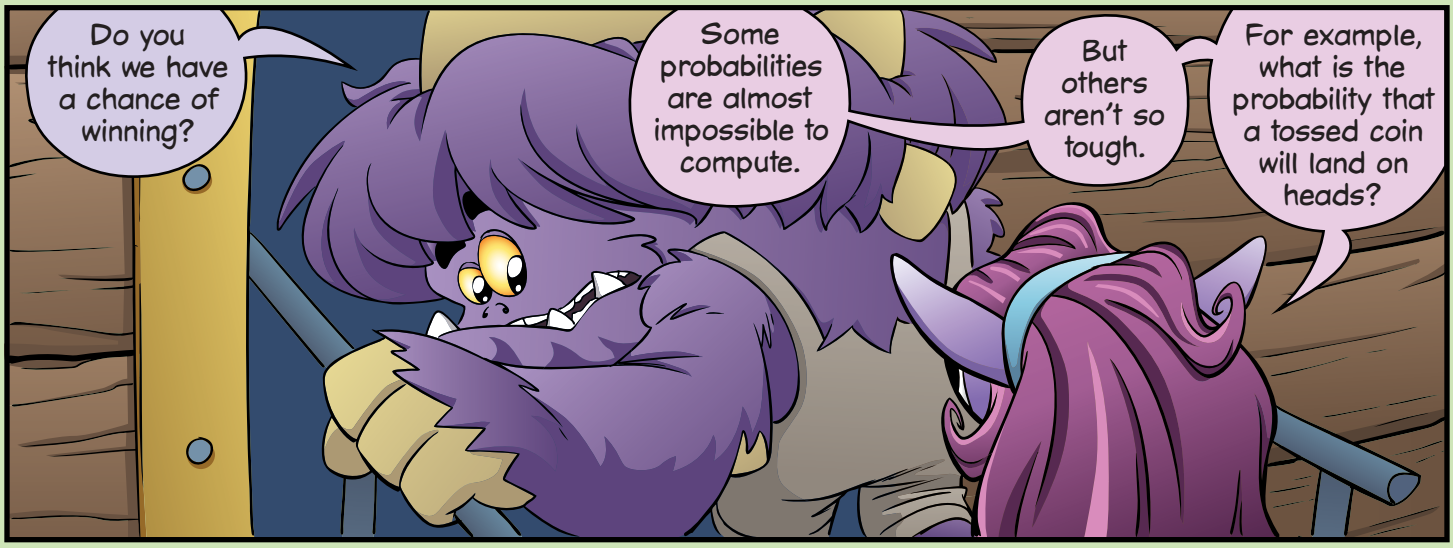
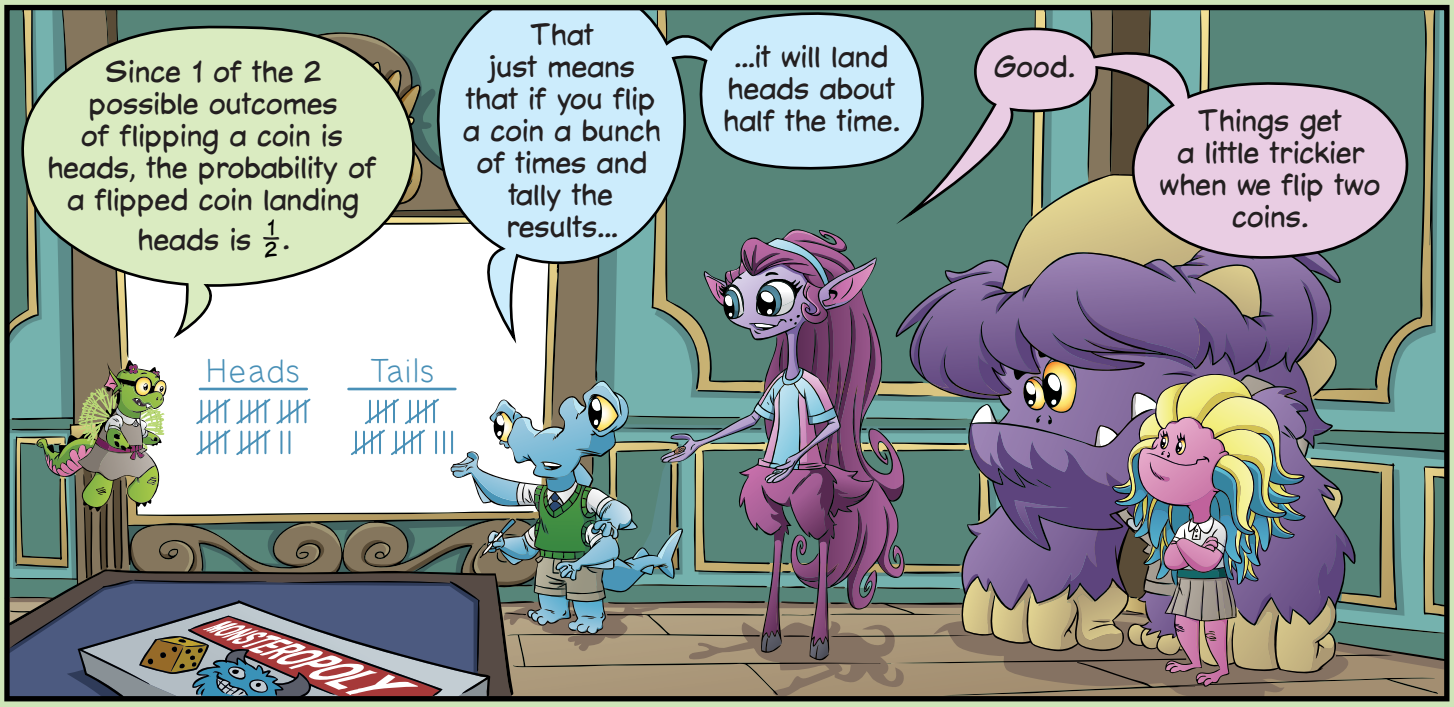
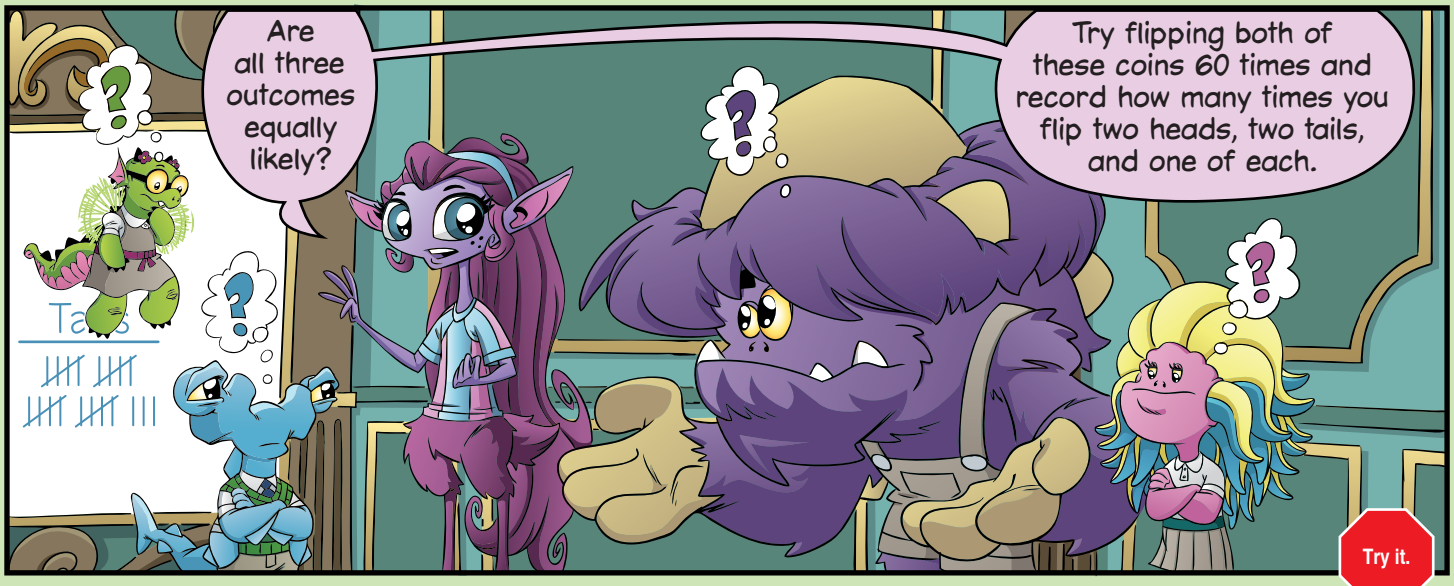
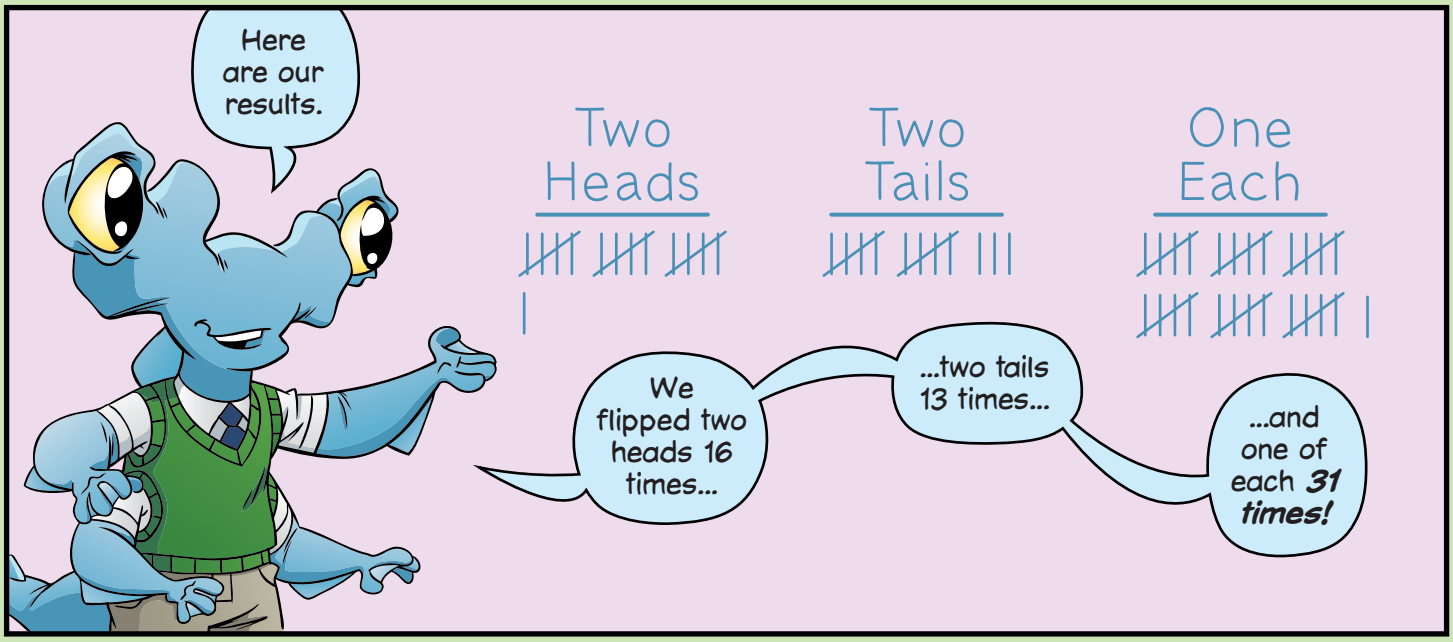
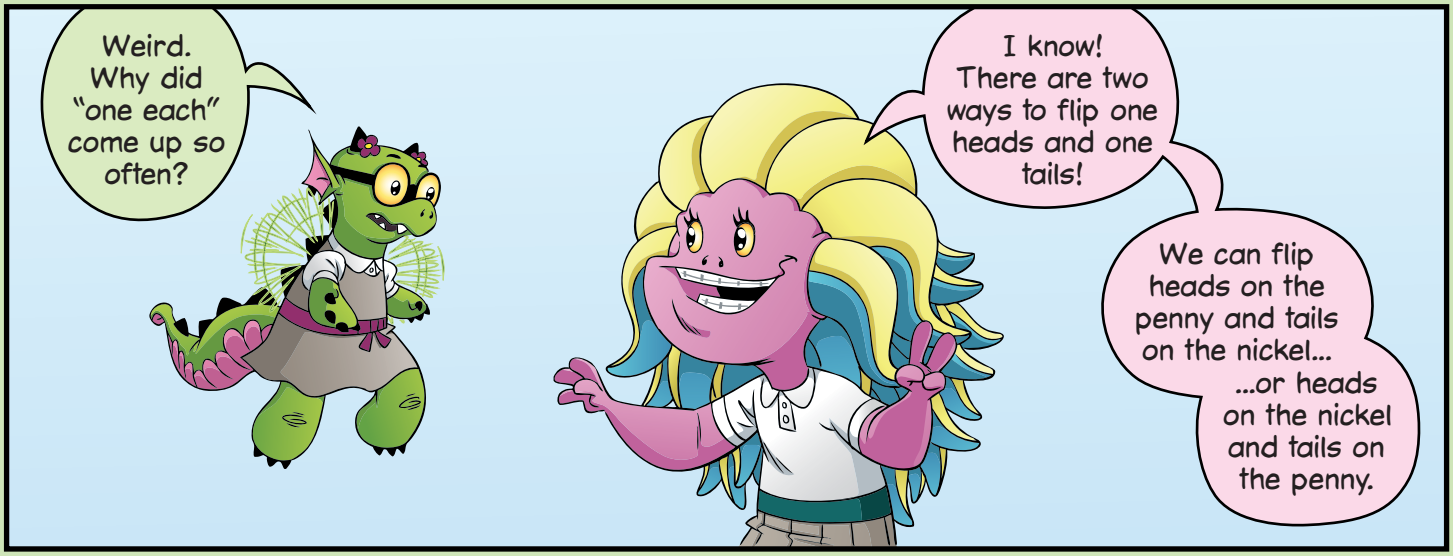
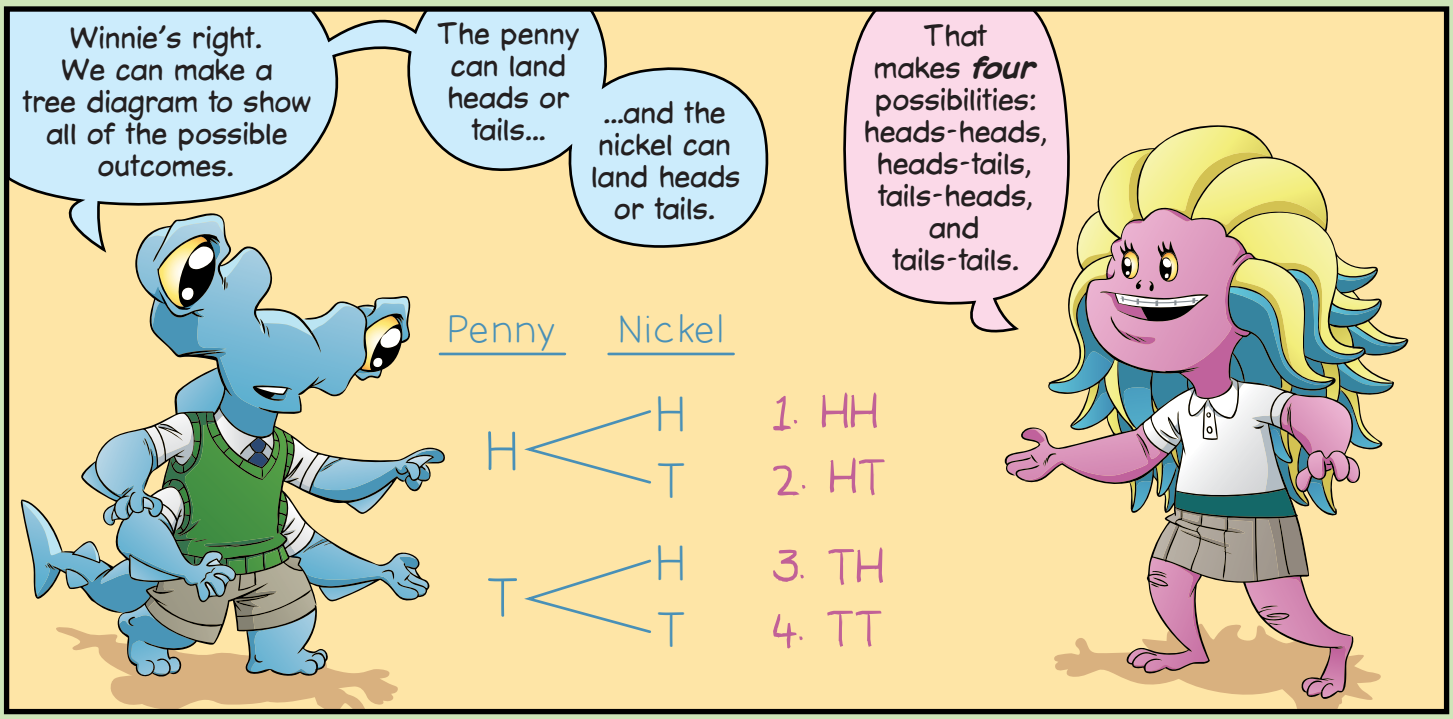












All 4 possible outcomes are equally likely...

...and only 1 of the 4 outcomes has two heads.

So, the probability of flipping heads twice is $\frac{1}{4}$.

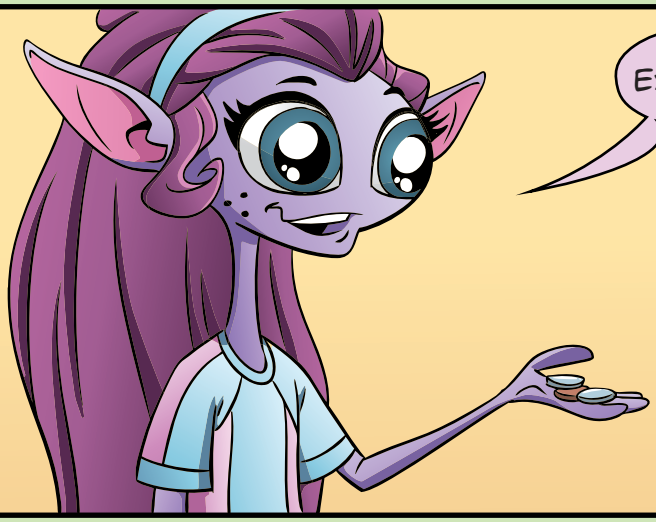
That matches our results. We flipped two heads on 16 of the 60 flips, which is about $\frac{1}{4}$ of the time.

Penny Nickel

H: H, T

T: H, T

1. HH
2. HT
3. TH
4. TT



Excellent.

Suppose I flip ***three*** coins.

What is the probability of flipping heads ***exactly*** twice with three coins?

We can add the third coin flip to our tree diagram.

That gives us ***8*** possible outcomes.

And ***3*** of the outcomes have exactly two heads.

So, on three flips of a coin, the probability you will get exactly two heads is $\frac{3}{8}$.

Penny Nickel dime

H: H, T

T: H, T

1. HHH
2. HHT
3. HTH
4. HTT
5. THH
6. THT
7. TTH
8. TTT