

Exams Review

The number of total outcomes is what you multiply by. An example is, from throwing a fair coin into the air, what is the probability that we get $\frac{3}{8}$ Heads? Well the numerator is 8-possible ways to throw, and each throw has 2 possible outcomes so we get 8^2

Example: What is the probability that you will get $\frac{5}{16}$ Heads if you flip a fair coin? First find the denominator 2^{16} and then find the numerator

Example: What are the possibilities of getting exactly 3 heads from throwing a fair coin five times?

We know that the denominator will be 2^5 . Exactly 3 heads is $5 \cdot 4 \cdot 3$ ways that we can flip our coin, but this will mean that we over counted some numbers so we have to divide it by $3 \cdot 2 \cdot 1$ ways. And then we end up with $\frac{10}{32}$