CS109: Probability for Computer Scientists
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Lecture Topics: 2.1 Discrete Probability

[**Tags**: PSet1 Q8a, Equally Likely Outcomes]

1. Suppose you went trick-or-treating (as an adult) and were able to nab 50 total candies, 13 of which are kit-kats. Your responsible parent says you can only eat 6 of them tonight. Let X be the number of kit-kats you grabbed out of 6. What is $P(X = k)$ for valid values of k ($k \in \{0,1,2,\ldots,6\}$)?

[**Tags**: Counting, Equally Likely Outcomes]

2. Suppose we have 13 chairs (in a row) with 8 TA's, and 5 professors to be seated. Suppose all seatings are equally likely. What is the probability that every professor has a TA to their immediate left and right?