

Homework 1, MAT 327/782, FALL 2018

1. What is the sample space for each of these random experiments?
 - (a) Roll two 4-sided dice.
 - (b) Flip one coins three times.
 - (c) Choose a Lehman student at random and ask what borough they live in. Student living outside of New York City answer "None".
 - (d) Choose a New Yorker at random and ask them how many movies they have watched in 2018.

2. Calculate the mean of the following random variables:
 - (a) Flip 3 coins. Let X be the number of tails.
 - (b) Let X be a random variable that takes on the value -4 with probability 0.3, the value 2 with probability 0.2, and the value 10 with probability 0.5.
 - (c) Let X be a random variable with $P(X = -1) = 0.25$, $P(X = 0) = 0.25$, and $P(X = 3.5) = 0.5$.