

Section 5.2 — Binomial or Not?

1. Roll 10 die, and record the number of 6's rolled. Is this a binomial experiment?
2. In a poll of 1000 randomly chosen Americans (assume 300,000,000 Americans), we want to estimate the proportion p that like to eat McDonald's food. Suppose that the truth is that 100,000,000 out of 300,000,000 like the golden arches. Each adult polled is asked whether or not they like McDonald's food. Is this a binomial experiment?
3. (Exercise 5.3) My urn contains three red and two white balls. Two balls are randomly selected without replacement from the jar, and the number x of red balls is recorded. Is x a binomial random variable?

Rule of Thumb for selecting a sample from a population: