

S25 Lecture Notes – Chapter 15: Binomial Problems (from text)

1. A coin is tossed four times. What is the chance of getting exactly one head?
2. A die is rolled ten times. What is the chance of getting exactly three aces?
3. A box contains one red marble and nine green marbles. Five draws are made at random with replacement. What is the chance that exactly two draws will be red?

These three problems are similar – in each situation, there are a certain number of independent trials. Each trial has two outcomes: “success” or “failure”. We are looking for the probability of a specific number of “successes”.