

### In Class Activity: Probability 1

**Q1:** Who are the members of your group?

Answer: David Murillo, Elyse McCormick, Jackie Stephens, Matt Jusino

**Q2:** How many red acorns are in your bag?

Answer: 3

**Q3:** What is the probability that you reach into the bag, randomly select an acorn, and it is red? You don't need to give an exact number but be sure to explain your reasoning.

Answer: 60%, because we have 5 acorns (100%), and 3 are red (60%). The probability of getting any corn is 20%, and we have 3 red corns, so  $20\% \times 3$  is equal to 60%.

**Q4:** What is the probability that you reach into the bag, randomly grab two acorns, and they are both red? Don't try to give an exact number, but rather explain why this might be higher or lower than your answer to the previous question.

Answer: 24%, The probability to get the first red corn is 60%, but the probability to get the second reduce to 40% because we are droff one red corn, and the probability two get to red corn in line is  $60\% \times 40\% = 24\%$ .

**Q5:** Keeping in mind your your answer to 2, what is the probability that you grab all 5 acorns at once and find **two red** acorns? Explain your reasoning.

Answer: If you are only supposed to be grabbing two red acorns the probability is zero percent because you are grabbing all 5 acorns in the sample and there are 3 red acorns total.

But if it is just the probability that there will be two red acorns in your handful of five, then it is 100% probability.

**Q6:** Keeping in mind your answer to 2, what is the probability that you grab all 5 acorns at once and find **three red** acorns? Explain your reasoning.

Answer: 100% chance of grabbing all five and having two red acorns because you are grabbing the entire population.