

1. Who are the members of your group?

Sonja Glasser, Jessica Bonin, Juliana Berube, Julia Vineyard

2. How many red acorns are in your bag?

3

3. What is the probability that you reach into the bag, randomly select an acorn, and it is red? Explain your reasoning.

$3/5$ or 60% because each acorn has a probability to be chosen and there are 3 acorns

4. What is the probability that you reach into the bag, randomly grab two acorns, and they are both red? Explain your reasoning.

$3/5 * 2/4$, The probability of grabbing two of the same would be 30% because the second acorn choice depends on what the first acorn was. There is no replacing the first acorn so the bag only has 4 left with 2 of them red. Even though they are technically grabbed at the same time, the elements affect each other.

Another interpretation is: If you take them at the same time then the probability would be $3/5 * 3/5$.

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

0 % because there are three red acorns, so this would not be possible.

6. Keeping in mind your answer to 2, what is the probability that you grab all 5 acorns at once and find three red acorns

100% because there are three red acorns in our bag.