

- **Q1 (1 pt.):** Who are the members of your group?

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- **Q2 (1 pt.):** How many red acorns are in your bag?

2 red acorns

- **Q3 (2 pts.):** 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.

The probability is $\frac{2}{5}$ that the acorn will be red because 2 out of the 5 acorns are red.

- **Q4 (2 pts.):** 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.

The probability that somebody would randomly grab two red acorns at the same time is lower than the probability that somebody would randomly grab one acorn. This is because there are more outcomes when selecting two items from the same pool which brings down the probability of getting the desired result.

- **Q5 (2 pts.):** 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.

The probability that if you grab all 5 acorns at once that you then find 2 red acorns is $\frac{2}{5}$, because you're certain to grab both red acorns.

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

The probability that if you grab all red acorns at once of finding three red acorns is zero, because we know that there are only two red acorns in the bag.