Olivia’s Problems

Probabilities

1. There are 700 students in sophomore year in college. 280 major in Psychology, 220 major in Neuroscience, and 300 major in another subject. Draw a Venn Diagram to represent this information.

1. How many double major in Psychology and Neuroscience?
2. What is the probability that a student majors in Psychology but not Neuroscience?
3. What is the probability that a student majors in Neuroscience, given that they major in Psychology?

2. Taylor’s Halloween bag has 4 Kit Kats, and 6 Reese’s. He randomly takes one out, without replacement. Taking a second candy after finishing the first, what is the probability that

1. At least one Kit Kat is chosen?
2. Reese’s is the second candy taken by Taylor?
3. A Reese’s is taken given that the other candy is a Kit Kat?