Warmup 8 Probability Tree

1. A real quarter and a 2-headed quarter are in a hat. You select one quarter at random and toss it twice. What is the probability that the fake quarter was tossed if the final outcome is HH?

2. A cookie jar contains 8 chocolate chip and 7 peanut butter cookies. You really want a chocolate chip cookie. You reach in and select a cookie and random, and keep eating until you either find a chocolate chip cookie or you have eaten three cookies. Draw a tree diagram and label all the appropriate probabilities on the tree. What is the probability you will eat at most two cookies?