Conditional Probability Worksheet 9

Use the permutation or combination formula to determine the number of possible outcomes.

1. Order matters: there are 5 possible events and 2 slots.

2. Order matters: there are 4 possible events and 4 slots.

3. Order doesn't matter: there are 4 possible events and 4 slots.

4. Order doesn't matter: there are 7 possible events and 2 slots.

5. Order doesn't matter: there are 6 possible events and 5 slots.
   ${}_6C_5 = 6$ outcome.

   Use the following information to answer questions 6-10. You have 7 M&Ms, one of each of the following colors: red, orange, yellow, green, blue, brown, and purple.

6. You randomly select 3 M&Ms. If you want a red M&M, how many possible outcomes are there?

7. You randomly select 3 M&Ms. If you want to select a red M&M second, how many possible outcomes are there?

8. You randomly select 1 M&M. What is the probability you will select the green M&M?

9. You randomly select 2 M&Ms. What is the probability you will select a red M&M and a green M&M?

10. You randomly select 3 M&Ms. What is the probability you will select a red , green and blue M&M?
