Probability P3: Probability of This then That

If you roll a die twice, what are the following probabilities:

1. P(a 2 then a 4)

2. P(an even number, then an odd)

3. P(the same number)

4. P(two different numbers)

You draw two cards from a standard deck. Assuming replacement occurs, what are the following probabilities:

5. P(a jack then a heart)

6. P(a club then a spade)

7. P(a face card then a number card)

8. P(a 2 then another number {not a 2})

You have a basket with 5 red marbles, 6 green marbles, 7 orange marbles and 10 blue marbles. You select two marbles at random. Assuming that no replacement occurs, find the probabilities.

9. P(2 green marbles)

10. P(a red then a blue)

11. P(a red AND a blue) (in no particular order)

12. P(two different colored marbles)

You are playing scrabble and you choose 2 letters from a pile containing one
W, X, F, G, T O, and U. Assuming there is no replacement, find the probabilities.
13. P(F then G)

14. P(T, then a vowel)

15. P(X then X)