Math 313-01, Homework for Quiz # 2

1 - 5. ## 1, 2, 4, 5, 9, from section 1.9, page 33 of the text.

6. Find the number of possible 12 character passwords that starts with 4 lowercase Latin alphabet letters followed by 8 Arabic numerical digits

7. Find the number of ways to seat 6 married couples in a row with 12 seats if each couple is seated together

8. Find the number of distinguishable arrangements of the letters of the word STATISTICS

9. Find the probability to draw two aces and two jacks from a well-shuffled deck of 52 cards

10. A student taking an examination is required to answer exactly 15 out of 20 questions. In how many ways can the 15 questions be selected if exactly 3 of the first 5 questions must be answered?

11. In how many ways can a panel of 12 jurors and 2 alternate jurors be selected from a group of 30 prospective jurors?

12. A DMV exam consists of 20 true-or-false questions, of which 17 must be answered correctly to qualify for a permit. In how many ways can a learner who answered all the questions qualify for a permit?

13. Find the probability to get "four of a kind" in a 5-card poker from a well-shuffled deck of 52 cards

14. Suppose a jar contains 12 green, 8 red, and 7 blue marbles. 6 marbles are selected at random without replacement from the jar. Find the probability that three marbles are green, two are red and one is blue.

15. Find the probability to have 3 red cards and 2 black cards in a 5 card-poker hand from a well-shuffled deck of 52 cards

16. Find the probability to draw two aces from a well-shuffled deck of 52 cards