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**AFM Unit 5: Probability Homework Day 2**

**Evaluate each expression.**

1. 2.

3. 4.

5. Form a list of 10 books, how many groups of 4 books can be selected?

6. There are 85 telephones in the editorial department of Glencoe Publishing Company. How many 2-way connections can be made among the office phones?

7. How many baseball teams of 9 members can be formed from 14 players?

8. The cast of a school play requires 4 girls and 3 boys. They will be selected from 7 eligible girls and 9 eligible boys. How many ways can the cast be selected?

9. Suppose there are 8 points in a plane, no 3 of which are collinear. How many distinct triangles could be formed with these points as vertices?

10. Consider a deck of 52 cards.

a. How many different 5-card hands can have 5 cards of the same suit?

b. How many different 4-card hands can have each card from a different suit?

11. Write and solve your own combinations problem.