Math 30-1

U8

Lesson 5 Assignment

1. The Sports Council decides to form a sub-committee of 6 council members to look at a new sports program. There are a total of 18 student council members, 7 females and 11 males. How many different ways can the sub committee consist of at most one male?

2. A group of 4 reporters are to be chosen to cover a natural disaster. There are 6 male

 and 8 female reporters available. How many possible groups can be formed?

 a) consisting of 2 men and 2 women?

 b) consisting of at least one woman?

3. Consider a standard deck of 52 cards. How many different four card hands have:

 a) at least one black card? b) at least 2 kings?

 c) two pairs? d) at most 2 clubs?

4. Student Council decides to form a sub-committee of five to investigate parking concerns. There are 4 males and 7 females on the student council. How many different ways can the sub-committee be formed consisting of at least one female member?

5. A basketball team of 12 players is to be chosen from 20 available players.

 In how many ways can this be done if:

 a) Kristin and Kelsey must be selected?

 b) Lizzie and Teagan cannot both be selected?

6. A group of friends decides to have a movie marathon one Saturday and watch 5 movies straight. There are 18 different movies available to pick from, 10 disaster movies and 8 horror movies. How many possible combination of movies include:

 a) at least one horror movie?

 b) at least four disaster movies?

 c) both “Sinister” and “The Day After Tomorrow”?

7. The number of ways that 9 students can be selected from a class of 34 is the same as the number of ways that n students can be chosen from the same class. What is the value of n?

8. How many people are there in a class in which there are 20 ways to select a committee of three people?

9. Solve for n.

 a)  b)  (two answers)

 c) 