

1. Without using a calculator, evaluate the following expression:
 - a. $C(6,4)$

2. Three students are selected from a class of 18 to work on a special project. In how many ways can the students be selected?

3. In the same class of 18 as above, in how many ways can at most 3 students be chosen?

4. The math club has 4 first year students, 6 sophomores, 6 juniors, 7 seniors and needs to select a committee of five people to plan the Pi Day event. Three of the committee members must be juniors. In how many ways can the committee be made?

5. You and a few friends go apple picking. In your barrel of apples you have 6 green apples and 4 red apples. If you pick out 5 apples how many ways can you pick exactly 2 green and 3 red?

6. In the same barrel of apples in how many ways can you select at least 7 apples (color does not matter)?