

## Math 477, Homework 1

1. In a class with 6 boys and 8 girls, how many ways are there to choose a team consisting of 2 boys and 2 girls?
2. How many ways can 7 different gifts be distributed among 10 children if no child is allowed to get more than 1 gift?
3. How many ways can 7 identical gifts be distributed among 10 children if no child is allowed to get more than 1 gift?
4. How many ways can 7 identical gifts be distributed among 10 children if children are allowed to get more than 1 gift?
5. A group of 10 children is given 4 different games to play. If the first two games need 3 players each and the other two games need 2 players each, how many ways can the children be assigned to the various games?
6. How many ways are there to be dealt 5 cards from a 52 card deck?
7. Given 6 distinguishable dice, how many ways are there to roll them and get exactly 3 ones?