Algebra 2 Outcomes Practice HWK 22

1. You run a 5k race for charity. The top 3 finishers each win a $50 gift card to Best Buy. If there are 100 peopl running the 5k how many ways can the gift cards be awarded?

2. There are 20 active skaters on an NHL roster for each game. If there is a shoot out a coach must list 3 players to participate in the first round in order of when they will shoot. How many different lists can the coach make?

3. You want to frame a picture to hang at home. At the frame shop there are 12 different frame styles to choose from, 15 different background colors to choose from, and 5 different frame sizes to choose from. How many different pictures can you create?

4. There are 12 cans of paint on the shelf. You are going to make a new color by mixing up three of these cans. How many different new colors can you make by mixing up three random cans of paint?

5. You are playing fantasy basketball where you create a team by choosing one guard, one center, and one forward from a list of 18 guards, 10 centers, and 21 forwards. How many different teams are possible?

6. You write a mulitple choice question with 5 answers to choose from: A through E. To try and prevent cheatin you will create different versions of the question by mixing up the answers. How many different versions of this tes can be created?

7. There are 16 players on a softball team. The coach needs to write out a batting order of 9 players. How many different batting orders are possible?

8. You have to choose a password for you new email account. A password must consist of 2 letters followed by numbers.

a) Find the number of passwords possible if letters and numbers can repeat.

b) Find the number of passwords possible if letters can't repeat but numbers can repeat.

c) Find the number of passwords possible if letters and numbers can repeat and a lower case letter is considered different than an upper case letter.