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| NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_ | **Prob and Stats** |
| Permutations/Combinations Day2 | **DATE: Tuesday, May 23, 2017** |

Practice:

1. A team of 14 soccer players needs to choose two players to refill the water cooler
2. Erin has homework assignments in four subjects. She only has time to do two of them. How many different groups of two subjects are there?
3. A group of 8 people are going to run a race. The top three runners earn gold, silver, and bronze medals. How many ways could the medals be awarded?
4. I have 6 students in my first class. I’m going to place them in the first row. How many ways could I arrange them?

Advanced:

1. A number lock has 9 different digits (it doesn’t allow ones). A combination of three digits can be set to open the lock. You can repeat digits. How many different codes are possible?
2. How many ways can a dinner patron select 4 appetizers and 2 vegetables if there are 7 appetizers and 5 vegetables on the menu?



1. If you are shooting 12 free throws, how many different ways could you make exactly 9 of them?
2. Advanced:Using this knowledge, find the probability that if you have a 75% chance of making free throws, you will make exactly 9 of them?
3. Advanced: If you flip a coin 6 times, what is probability you get 3 heads?

