1) Kevin, Jack, Billy, and Zach race each other across the football field. How many different ways can they finish? **SHOW EVERY WAY USING A CHART!**

2) Haley is writing checks to pay her electric bill, her cable bill, and her phone bill. How many permutations are possible? **SHOW EVERY WAY USING A CHART!**

3) The NFC East contains teams from Philadelphia, Dallas, New York, and Washington. How many different ways can the top two teams finish? **SHOW EVERY WAY USING A CHART!**

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**No chart necessary for the following…just calculate it!**

4) Larry puts 6 different CDs in his 6-CD changer, and then randomly plays 4 CDs. In how many different orders can he play the 4 CDs?

5) Using the letters in the word “WORLD”, how many permutations are possible if using all the letters. (Keep in mind that it doesn’t have to spell an actual word.)
6) Using the numbers 7, 4, 9, 2, 5, and 8... how many different two-digit numbers are possible?

7) From a class of 15 students, Mr. Seidel will randomly select class officers (President, Vice-President, and Secretary). How many different groups of officers can be chosen?

8) A baseball team has 9 players who hit in the lineup. If you are told which 9 players are definitely hitting in the lineup, how many different ways could the first 4 batters be arranged?

9) Find the surface area of the rectangular prism.

10) Find the length of the missing side.