**Applications of Distance, Midpoint and Gradient Group Assignment**

This assignment will be completed in 3 parts:

- Part A will be completed independently
- Part B will be completed in small groups of 3
- Part C will be completed as a class

***Part A: You be the teacher!***

For this part of the assignment, you will be given the opportunity to make up your own questions that make use of distance, midpoint and gradient. You should try to be creative (rather than just copy questions from your textbook) and you should try to create at least one question that makes use of each formula. You will be given about 20-30 minutes to do this.

***Part B: Collaborating***

For this part of the assignment, you will be given the opportunity to collaborate with some of your peers (working in groups of 3). Within your group, you will share the questions that you came up with on your own. Then, you will try to decide which questions you would like to include in your assignment. You may wish to combine ideas to come up with questions that are truly unique and challenging. ☺ Once you have decided on your questions (one for each formula for a total of 3), you will write them out on a piece of chart paper (provided). Then, on a piece of loose leaf, you will write out a full solution to the problems. Each member should contribute to each part of the assignment. You will be given until the end of the first class to complete this part of the assignment. Anything that is not finished must be completed prior to the second class.

***Part C: Sharing/Doing***

This part of the assignment will be completed on the second class. Each group will post their chart paper in a space specified by the teacher (your written solutions will be given to the teacher). Then, groups will swap questions. This can be done by whatever method the teacher finds easiest (for example, drawing names out of a hat, simply rotating to the right or left by one spot, etc.). Once every group has a new set of questions, you will do them on a piece of chart paper (provided). You will be given about 30-40 minutes to complete this part of the assignment. Then, each group will be given the opportunity to share the questions and solutions with the rest of the class.