

Slopes Project
Due: Thursday, February 16th, 2017
40 points (test grade)

Overview: The purpose of this project is to help you gain a better understanding of the slopes of lines. The slope of a line is the ratio of the change in y to the corresponding change in x. It can be written in the following ways:

$$m = \frac{\text{rise}}{\text{run}} = \frac{\text{change in } y}{\text{change in } x} = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$$

For this project, you need to draw a picture that includes lines with at least 10 **different** slopes. You may not count lines with the same slope. You may draw your picture by hand on blank computer paper or graph paper. If you use blank paper, finding the slopes will require a little more work because you will have to take measurements. If you use graph paper, finding the slopes will be easy by using rise over run. Extra credit will be given to students who do extra work (i.e. calculate more than 10 different slopes, draw picture on blank paper, etc...). Your 10 slope calculations should be on a separate paper from your drawing. Be sure you identify which line in your drawing you are using (describe where your line is on the picture). You must also include a definition for slope in words and symbols. A rubric for this project is below.

Project Rubric:

Completed project turned in on time	10 points
10 different slopes identified and calculated correctly	20 points
definition of slope in words and symbols included	10 points
Total	40 points