Discussion Forum 2: Stairs Option

In this option of the activity, you will measure the rise and run of several steps (they should be the same.) Round your measurement to the nearest inch.

Measure, or calculate, the distance from the bottom step (floor level) to the top stair, and round to the nearest inch.

Distance from bottom step to top stair: _____

The distance can be calculated using the Pythagorean theorem and the rise and run values. Do not forget to count the top run of your stairs to determine the total number of runs (the number of rises and runs should be the same.) The total number of runs along with the diagonal distance calculated using the Pythagorean theorem can be used to calculate the distance/length of your stairs.

Calculate the slope from your rise and run measurements.

State the slope (rise over the run): _____

Find an ordered pair (x_2, y_2), such that the distance between the ordered pair and the y-intercept equals the distance measured above (from the floor level to the top of the stairs). Graph your ordered pairs and draw the line between them as shown in the diagram below.
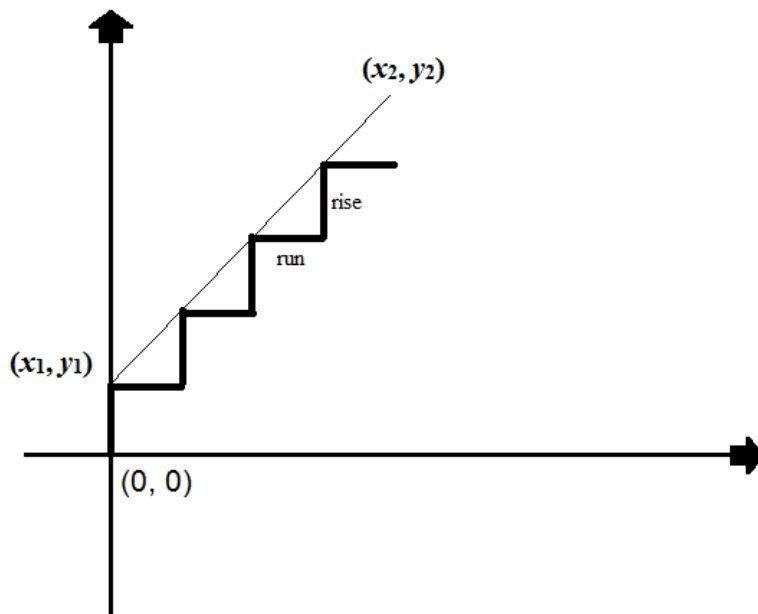
State the coordinates of (x_2, y_2):_____

Using the two ordered pairs above, write the equation of the line for your stairs. Make sure to state the y-intercept in ordered pair format, not as a single value.

State the equation of your line (two-point form): _____

Take a photo of your stairs. Then post your measurements, graph, equation of the line, and your photo to the designated discussion forum.

Thoroughly comment on at **least two** of your classmates' posts. Verifying that the non-origin ordered pair is correct (calculate his/her measured distance), the slope and equation of the line are correct, and a photo and graph are submitted. If anything is in error, please let your classmates know.