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Pre-AP weekly project 1.5

1. Create and color a picture, using graph paper, of your first initial. Use block letters. (Examples of block letters are below.)
2. Label each line of your drawing with a number (Example: 1, 2, 3, ...)
3. Label each line as positive slope, negative slope, horizontal line, or vertical line.
4. Determine the equation for each line in the drawing. Put your information on the chart on the next page.

5. Answer the following questions:
a. The slope for every vertical line is $\qquad$ .
b. The slope for every horizontal line is $\qquad$ .
c. Suppose you have the points $(5,8)$ and $(2,3)$. How do you create an equation in slope-intercept form that passes through these two points? (Make sure to show ALL your work so a friend could look at your work and see what you did.)
d. What is the equation of a line that has a slope of zero and a y-intercept of 4?
e. What is the equation of a line that has an undefined slope and an $x$ intercept at -2?
f. What is the equation of a line that has a slope of 3 and a $y$-intercept of -3 ?

| Line <br> $\#$ | Point <br> \#1 | Point <br> \#2 | Slope of <br> line (Pos, <br> Neg, Zero, <br> or <br> Undefined) | Slope (m) <br> SHOW WORK! | y-intercept (b) <br> SHOW WORK! | Equation of <br> line <br> y=mx +b |
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