## Mart Project

Your task: you are to create a piece of art (it can depict something realistic, or abstract), using straight lines on a Cartesian Plane.

## Part A

Create an art piece on the attached Cartesian plane. You need to label each line with the correct equation. You may include a scale (if you do not, I will assume your scale is 1). Your lines must meet certain minimum requirements. You must have at least one of each of the following (though you may have many more):

- horizontal line
- vertical line
- equation that is a partial variation
- equation that is a direct variation
- positive slope
- negative slope
- slope that is a whole number
- slope that is a fraction
- equation written in Slope y-intercept Form
- equation written in Standard Form
- pair of parallel lines
- pair of perpendicular lines
- 1 pair of intersecting lines (with a visible point of intersection)
- 10 lines (or more)


## Part B

Fill out the "Mart Equations Worksheet". This ensures you've met all the requirements, and will also serve as your marking sheet.

## Part C

Create a final art piece where the lines do not need to be labeled, and you do not need to include a scale. When you are ready to begin your final piece, I will provide you with a piece of grid paper identical to the one you used for Part A, only larger. The piece needs to be coloured and complete, so it is suitable to display in the classroom.

## Due Date:



## Part B:

Mart Equations Worksheet
Complete this worksheet, filling in your equation for each requirement. Leave the "Grade" column empty.

|  | Fill out this | Grade |
| :---: | :---: | :---: |
| The equation for one of my horizontal lines is: |  | /1 [K] |
| The equation for one of my vertical lines is: |  | /1 ${ }_{\text {[K] }}$ |
| One equation that represents a partial variation is: |  | /1 ${ }_{\text {[K] }}$ |
| One equation that represents a direct variation is: |  | $/ 1_{\text {[ } \mathrm{K}]}$ |
| One equation that has a positive slope is: |  | /1 [K] |
| One equation that has a negative slope is: |  | $/ 1_{\text {[ } \mathrm{K]}}$ |
| One equation that has a slope that is a whole number is: |  | $/ 1_{\text {[K] }}$ |
| One equation that has a slope that is a fraction is: |  | $/ 1_{\text {[ } \mathrm{K]}}$ |
| An equation written in Slope y-intercept Form is: |  | $/ 1_{\text {[K] }}$ |
| An equation written in Standard Form is: |  | $/ 1_{\text {[ } \mathrm{K}]}$ |
| For one pair of intersecting lines, the equations are: | and | $/ 2_{[T]}$ |
| The point of intersection is: |  | $/ 1_{\text {[ }}$ ] |
| For one pair of parallel lines, the equations are: | and | $/ 2_{\text {[ }}$ ] |
| For one pair of perpendicular lines, the equations are: | and | $/ 2^{[\mathrm{A}]}$ |

Neatness and creativity:

