Using a picture of your choice, analyse the lines in the picture and provide the set of equations that would allow me to recreate your picture using https://www.desmos.com/calculator. You may draw your own picture or use a photograph to generate your picture. Insert the image into the software and estimate where the lines (no curves!) should be

You must use a minimum of 20 different linear relations to make your picture. In your drawing you must include

- two lines in slope-intercept form,
- two lines in standard form,
- two lines in slope-point form,
- two horizontal lines,
- two vertical lines,
- two lines with positive slope,
- two lines with negative slope,
- two pairs of perpendicular lines (not just horizontal and vertical), and
- two pairs of parallel lines (not just horizontal or vertical).

Points will be awarded based on the complexity of the picture.

When you have_completed your project, please share it the Assignments tab in our Microsoft Team.

## Checklist:

| Done | Type | Line \# / Equation | Line \#/ Equation |
| :--- | :--- | :--- | :--- |
|  | Slope - Intercept Form |  |  |
|  | Slope - Point Form |  |  |
|  | General Form |  |  |
|  | Horizontal Lines |  |  |
|  | Vortical Lines |  |  |
|  | Negative Slope |  |  |
|  | Perpendicular Lines |  |  |
|  | Parallel Lines |  |  |

Your project will be marked on the following rubric. You can follow the links to some previously well done projects:

> https://www.desmos.com/calculator/exrihg5pci $\underline{\text { https://www.desmos.com/calculator/nmfcvy8uur }}$ $\underline{\text { https://www.desmos.com/calculator/rtyahsf9cm }}$

| Task | Emerging | Developing | Proficient | Extending |
| :---: | :---: | :---: | :---: | :---: |
| Quantity of equations used | $0-9$ equations <br> present | $10-14$ <br> equations <br> present | 20 equations <br> present | More than <br> 20 equations <br> present |
| Types of equations used | $0-4$ criteria <br> met | $5-8$ criteria <br> met | all 9 criteria <br> met | x |
| Checklist | missing | partially <br> complete | complete | x |
| Quality and Complexity of work. | minimum <br> requirements <br> met | missing some <br> project <br> requirements | met all <br> project <br> requirements | Exceeded all <br> project |
| requirements |  |  |  |  |


| Overall Grade: |  |
| :--- | :--- |

