

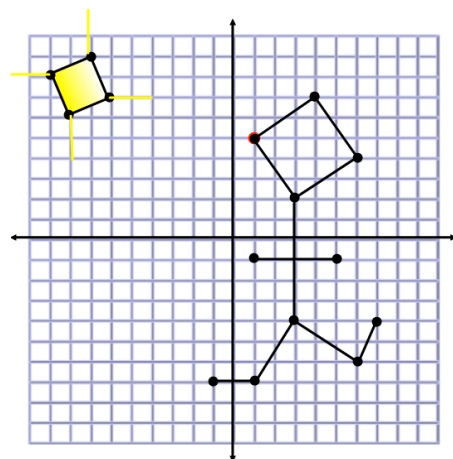
# Unit 1 Extended Assignment | Directions in Another Language

In this assignment you will be creating a picture using Mathematical directions. It needs to contain at least 20 different lines. The picture at right is an example of what I expect...

There are three major parts to this project. Please complete all three. Get started.

**PART 1: The design.** You will create a design. This design will be accurate and neat. You will need

- Parallel Lines
- Perpendicular Lines
- Domain and Range that limits the lines
- Other lines that are just simply there to help with the picture.
- If you want to put in Parabolas i.e.  $y = ax^2 + bx + c$ ... feel free to try.



**PART 2: The poster.** I want you to create an awesome poster that displays your picture, along with the directions sheet. This should be very very neat, and easy to see from a distance.

**PART 3: The directions sheet.** You will be writing mathematical directions for this picture. I will give you an example below. In the language you need to have statements like...

## Direction Requirements

- Ex. 1: Has a slope of "m" and goes through the point (x,y).
- Ex. 2: Goes through the points  $(x_1, y_1)$  and  $(x_2, y_2)$ .
- Ex. 3: Is Parallel to Line # and goes through the point (x,y)
- Ex. 4: Is Perpendicular to Line # and goes through the point (x,y)
- Is a vertical Line that goes through the point (b,y) ( $x = b$ )
- Is a horizontal Line that goes through the point (x,a) ( $y = a$ )
- You must have lines in both...

**Slope/Intercept form**  $Y = mx + b$  and **Point/Slope form**  $y - y_1 = m(x - x_1)$  Form.

