

Linear Equations Art Project

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What?

Create a picture made entirely of line segments. Use slope and points to create equations for each line segment in your picture.

How?

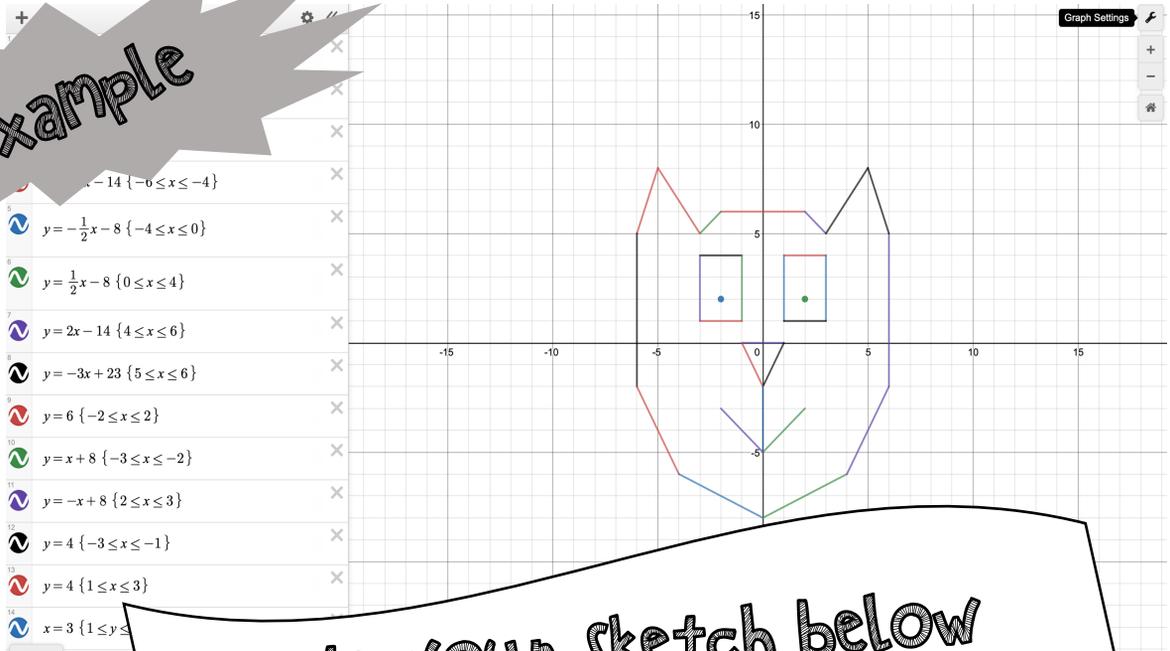
Here are the project requirements...

- ✓ Create an original sketch on graph paper
 - Sketch must include at least 15 line segments
 - At least 10 line segments need to be slanted (not vertical or horizontal)
 - Be sure your sketch contains no curves, just line segments
- ✓ Create an equation for each line segment in your sketch
- ✓ Go to [desmos.com](https://www.desmos.com) and begin entering the equations
 - Sign in before you start graphing
 - Be sure to give your graph a title and save it frequently
 - Enter equations for the line segments. Restrict the domain using the x-coordinate of the endpoints of the line segments.
 - ex. $\{x\text{-coordinate of the left endpoint} \leq x \leq x\text{-coordinate of the right endpoint}\}$
- ✓ Share your graph by copying the link and sending the link in an email

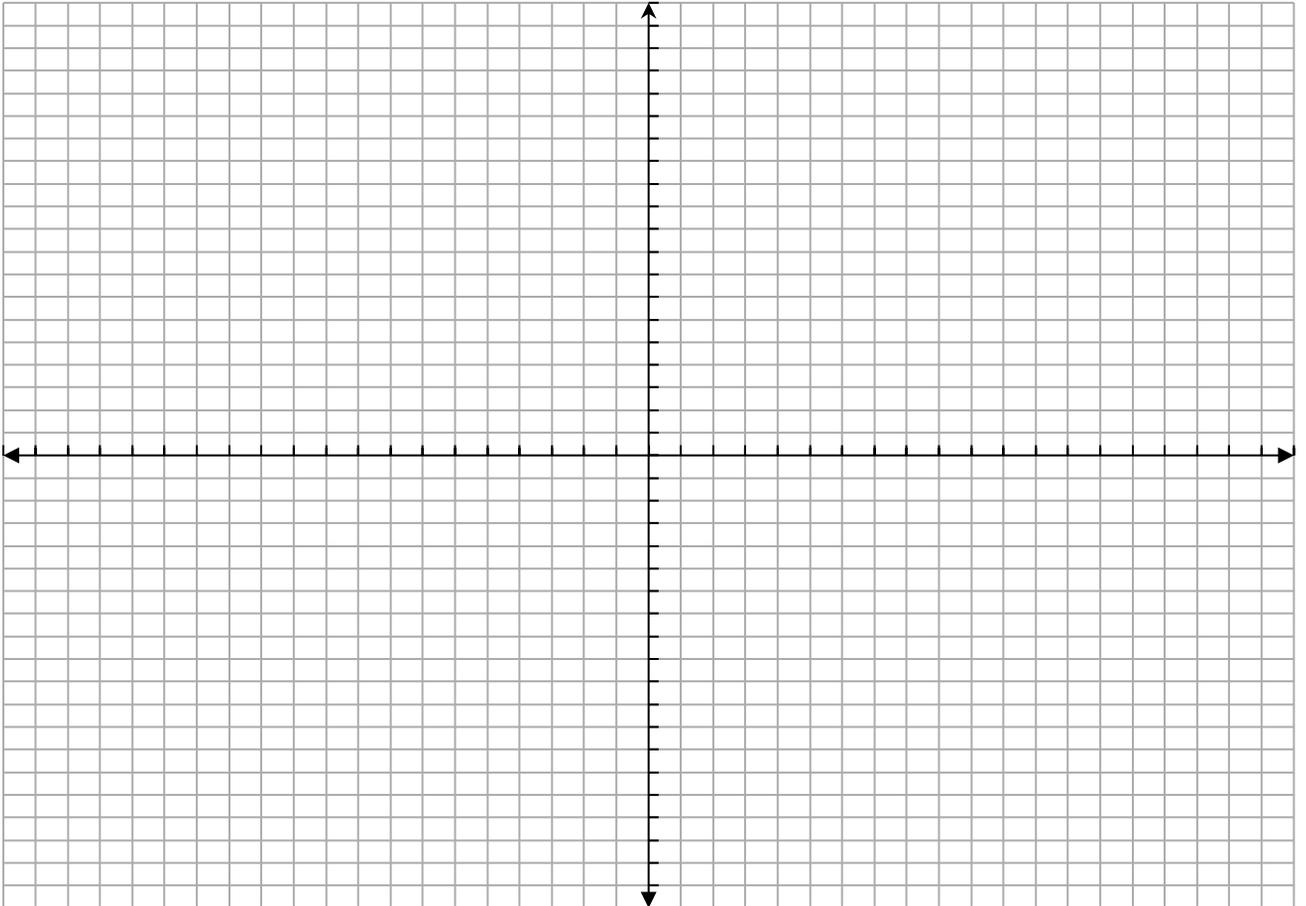
When?

The project is due

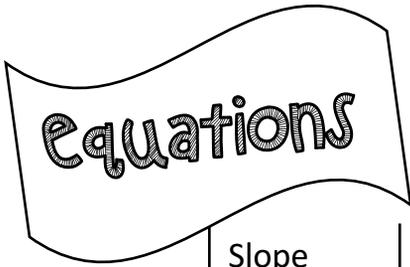
example



Create your sketch below



Name: _____ Class: _____ Date: _____

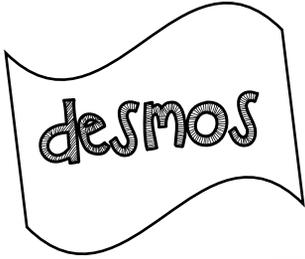


Equations

A minimum of 15 line segments/equations are required for the project. If your picture contains more line segments, use the additional spaces and/or extra paper if needed. Be sure to attach any additional equations to the final project.

	Slope	Equation
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

Name: _____ Class: _____ Date: _____



Enter all of your equations into the online graphing calculator at [desmos.com](https://www.desmos.com). To restrict the domain of the equation, use the x-coordinates of the line segment. See the examples below.

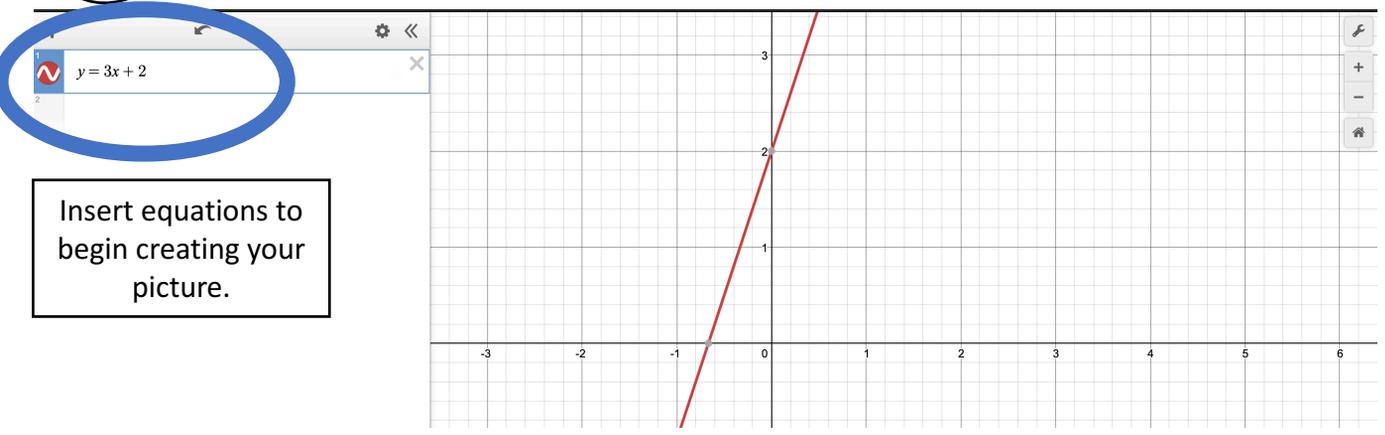
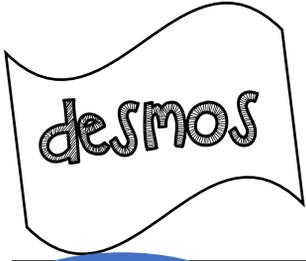
The screenshot shows the Desmos homepage. A blue oval highlights the "Start Graphing" button. A white arrow with the text "Start here" points to the button. Below the main banner are three sections: "Four Function and Scientific", "Teacher.desmos.com", and "Learn.desmos.com", each with a blue button.

Graphing on the go? There's an app for that!

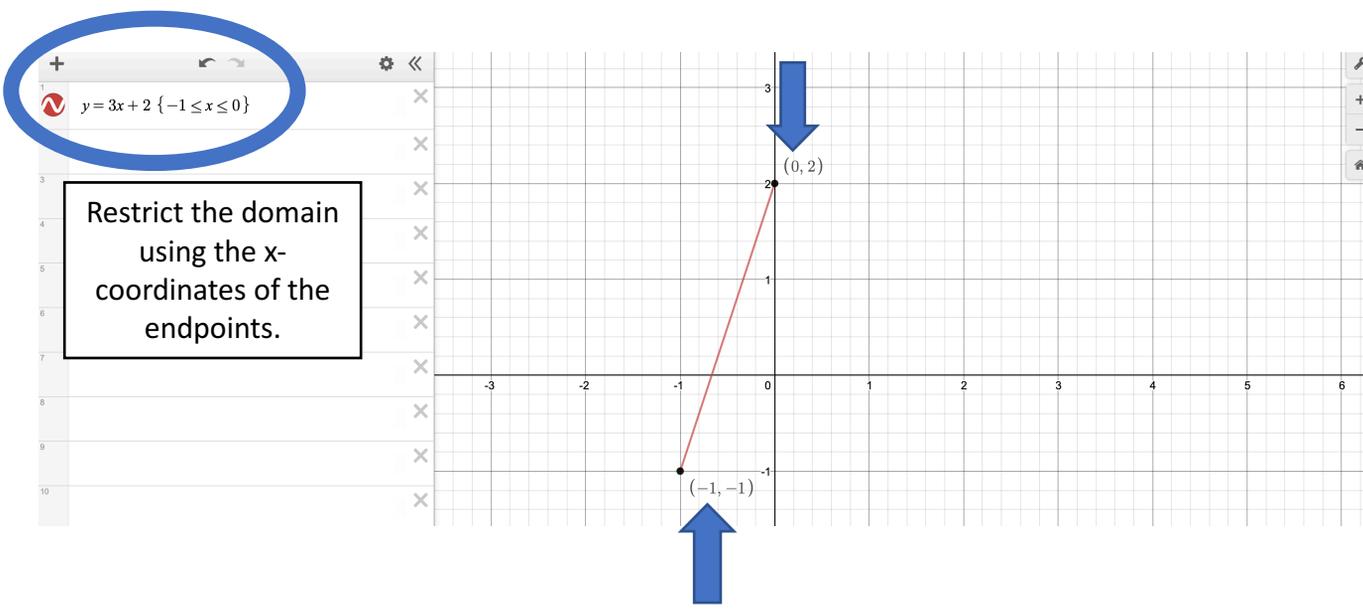


The screenshot shows the Desmos graphing interface. A blue oval highlights the "Create Account" or "Sign In" buttons in the top right corner. A text box on the right says "Create an account or sign in with a Google account".

The screenshot shows the Desmos graphing interface. A blue oval highlights the "Untitled Graph" title and the "Save" button in the top left corner. A text box on the left says "Create a title for your graph and save it. Be sure to save frequently."



Insert equations to begin creating your picture.



Restrict the domain using the x-coordinates of the endpoints.



Share your graph

Share this link:

www.desmos.com/calculator/hkscysbkwe Copy

Print Export Image Embed

When all equations are entered and your picture is complete, be sure to save the graph. Then copy the link and paste the link into an email.

thank you!

Please leave a
review. Your
feedback helps me
improve my
resources.

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instagram for
more resources
[@dye.for.math](https://www.instagram.com/dye.for.math)