

# Desmos: It's Not Your Parents' Graphing Calculator

---

Connie Stromberger

<https://goo.gl/YK8Nxq>

# 3 goals for today

- Use Desmos to create graphs (art)
- Explore various activities created by Desmos
- Learn to set up your own Desmos activity

# Why Use Desmos to Create Graphs?

- Allows for discovery of new concepts
  - Differentiation/self-paced
  - Exploration of advanced concepts
  - Art integration
  - Students enjoy it
-

[www.student.desmos.com](http://www.student.desmos.com)

EHD5E

One possibility:

$$y = 4x + 2 \quad \{y < 0\}$$

# Features

- restrictions are listed as the domain and/or range in braces
- click the circle to make the line appear and disappear
- click and hold the circle to see color and line options
- standard keyboard or on-screen keyboard
- click and hold on a line to see the coordinates
- try zooming in and out

# Features

- $< =$  will convert itself
- Arrow out of fractions
- Entering points (x, y)
- Error triangle gives tips
- Scale can be changed in tool icon (check at the start)

# Adaptations

- Initials only
- Rounded letters must have corners cut
- Shade the holes of letters
- Rounded letters must use curves (circles, parabolas, etc)



# Considerations

- Students with color deficiency
- Students who may need a mouse
- It's easy for them to copy and paste a project.

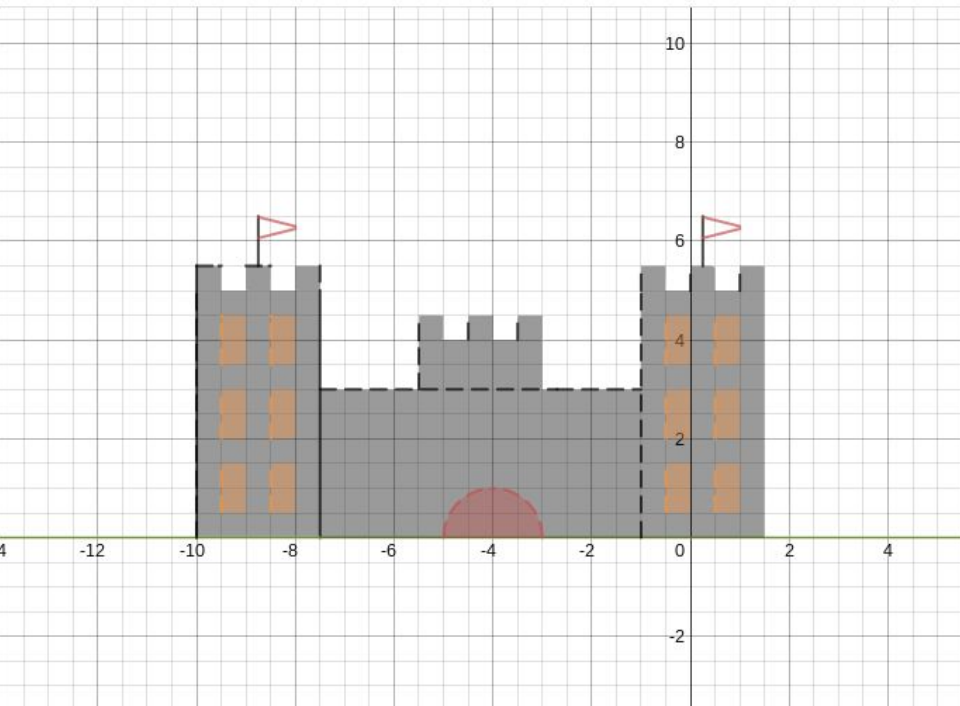
# Link to instructions and rubric

**\*\*Make a copy of the document  
if you want to edit it for your  
own use.\*\***

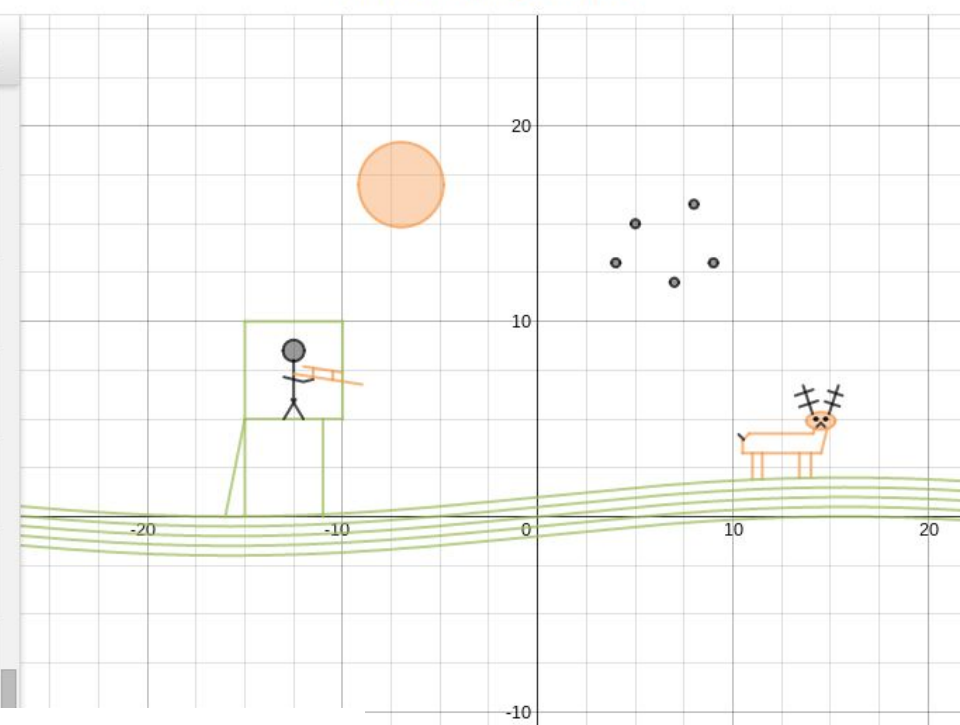
[www.student.desmos.com](http://www.student.desmos.com)

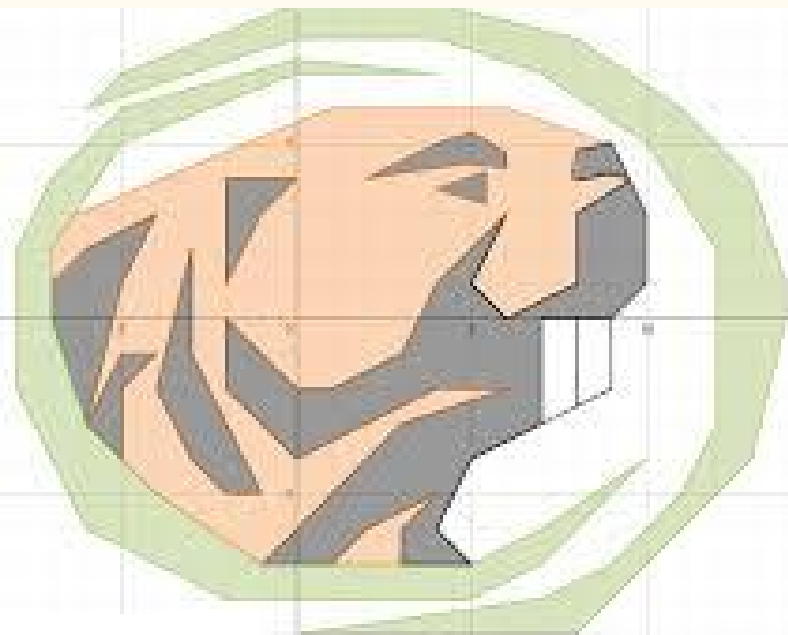
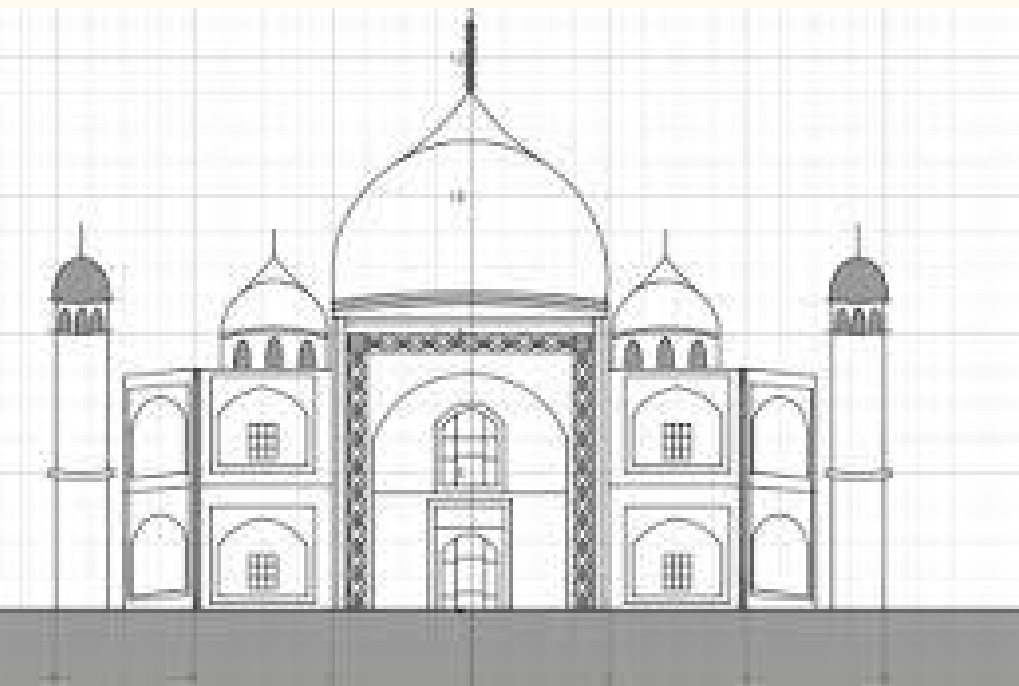
T4HE5

### Create Your Art Here



### Create Your Art Here





The possibilities





# Troubleshooting Students' Common Mistakes

- Can't see the art?
  - Check the scale
  - Zoomed in too much?
    - Home button is a quick fix (only appears in upper right corner when it's zoomed)
- $\{sm \# < X < big \#\}$
- Settings → reset
- Log in Using Google

---

- Don't use [Desmos.com](https://www.desmos.com)

# Student-Created Cheat Sheet

- To make a line like  use  $y=mx + b$ 
  - Change  $m$  to move a line up or down
  - To make a line like  make  $m$  negative
  - Make  $m$  a fraction less than one to make a less steep line
- To make a  use  $x = \#$
- To make a  use  $y = \#$
- To restrict on left and right, use  $\{\# < x < \#\}$
- To restrict above and below, use  $\{\# < y < \#\}$
- To make curved lines, google equations of circle, parabola, sine, ellipse

# Why Use Desmos-Prepared Activities?

- Allows for discovery of new concepts
  - Differentiation/self-paced
  - Minimal prep for the teacher
  - Graphing and non-graphing
  - Students enjoy it
-



[www.teacher.desmos.com](http://www.teacher.desmos.com)

Search for Marbleslides: Parabolas

Note the teacher info.

“What we had in mind” and “Goals” usually let me know whether it’s worth exploring further.

# Let's Play!

[www.student.desmos.com](http://www.student.desmos.com)

Marbleslides: Parabolas <http://www.student.desmos.com> SDGX3

Waterline 45QMG

Picture Perfect R3RRS

Central Park 39PTP

Polygraph: Lines ZTARX (need partner)

# Let's Create!

[www.teacher.desmos.com](http://www.teacher.desmos.com)

Create an account.

Click “custom” on the left.

Click “new activity” in the upper right.

Follow on-screen directions.

# How to Use Desmos in Your Classroom: Tips and Encouragement

- Have students log in using Google. Name will appear in upper right corner. This saves it constantly just like a google doc.
  - Students can access Desmos at home.
  - Project your computer to show students' work to each other.
  - Don't be afraid to learn it along with your students.
-

# Now what?

- [Teacher.desmos.com](https://www.teacherdesmos.com) to set up your account
- Explore more activities
- Create Desmos art
- Has anyone found something they want to share?
- Questions?

