Desmos Graphing Art

Due 5/26/20

For this project you will use www.desmos.com/calculator to create a unique picture.

*Note: you cannot save work on the app, use the web based program & be sure to log in and try saving before you get too far!!!

Requirements

- Use at least 4 different types of graphs (parabola, line, exponential, absolute value, etc)
- Use at least 10 different equations to create your picture
- Restrict the domain and/or range of at least 5 equations to create your picture
- Must include at least 1 exponential equation, 1 absolute value equation, 1 quadratic equation, and 2-3 linear equations
- Share link to the google classroom under assignment 5/20/20

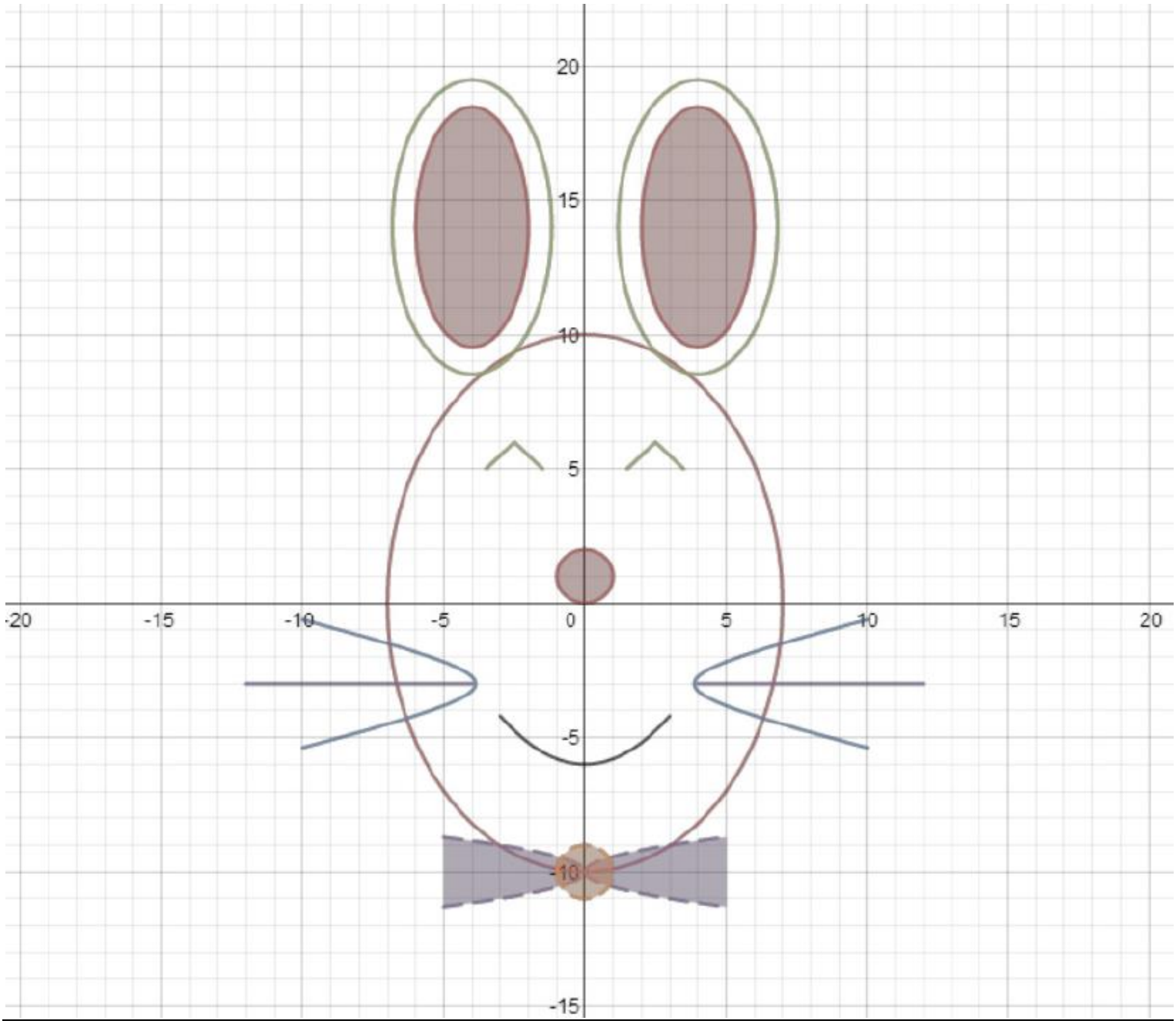
Tips

- You will need to create an account in order to save/share your project (it's free)
- A quick start guide is available https://desmos.s3.amazonaws.com/desmos_quickstart.pdf
- A full users manual is available https://s3.amazonaws.com/desmos/Desmos_Calculator_User_Guide.pdf
- YouTube videos are available http://www.youtube.com/desmosinc
- There are many examples available online, but be sure to turn in your own unique picture.
    - Plagiarism will be reported and result in a zero!!
- Be sure to include your name (add text as equation #1)

Rubric

1	2	3	4	5	Multiplication Factor
Student uses only one type of graph	Student use only 2 types of graphs	Student uses only 3 types of graphs		Student uses 4 or more types of graphs	x2
Student has 5 or less equations		Student has 6-8 equations	Student has 8-10 equations	Student uses 10 or more equations	x4
Domain/Range restricted on only 1 equation	Domain/Range restricted on only 2 equations	Domain/Range restricted on only 3 equations	Domain/Range restricted on only 4 equations	Domain/Range restricted on 5 or more equations	x2
Picture is basic & plain design & doesn't show much creativity. Colors are randomly chosen		Picture is creative & actual object (not design) but not very elaborate. Student does things like choosing the colors		Picture is elaborate, creative & looks like intended object. Student put thought into colors, details, etc	x1
Extra Credit	Student goes above & beyond minimum requirements (uses sliders as animators, etc)				

Total:_____/50



2. $\frac{x^2}{49}+\frac{y^2}{100}=1$

3. $y=-\text{abs}(x+2.5)+6\{-3.5\le x\le -1.$

4. $y=-\text{abs}(x-2.5)+6\{1.5\le x\le 3.5\}$

5. $y=.2x^2-6\{-3\le x\le 3\}$

6. $x^2+(y-1)^2\le 1$

7. $\frac{x^2}{15}-(y+3)^2=1\{-10\le x\le 10\}$

8. $y=-3\{-12\le x\le -4,4\le x\le 12\}$

9. $\frac{(x+4)^2}{8}+\frac{(y-14)^2}{30}=1$

10. $\frac{(x-4)^2}{8}+\frac{(y-14)^2}{30}=1$

11. $\frac{(x+4)^2}{4}+\frac{(y-14)^2}{20}\le 1$

12. $\frac{(x-4)^2}{4}+\frac{(y-14)^2}{20}\le 1$

13. $x>3(y+10)^2\{x<5\}$

14. $x<-3(y+10)^2\{x>-5\}$

15. $x^2+(y+10)^2<1$