![Logo

Description automatically generated]()**Processing 3**

**Cookie Cutter**

Open **trinket.io** in the browser. You will need an email address to **sign-up**.

1. Rectangles can be drawn with the **rect** function. The first two *arguments* set the x,y location of the upper-left corner of a rectangle, the third sets the width, and the fourth sets the height.

*For example, rect(0,0,100,100) draws a 100x100 pixel square at the****origin****(0,0).*

1. Create a new Python Trinket and create this “cookie cutter” code that draws a shape at the mouse cursor position when you press a key.

Graphical user interface, text, application, email

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1. When you press a key, the **keyPressed** function is called. This leaves nothing to do in the draw function. In Python, you can have an empty function that *passes* on doing anything, by adding the word **pass** in the function body (see line 11).
2. Make the **keyPressed** function draw different shapes by looking at what key is pressed. This value is stored in a variable called **key**.
3. Use an **if** statement to check to see if the key is equal to ‘r’ for ‘rectangle’ using the test, Key==”s”

Graphical user interface, text, application, Teams

Description automatically generated

1. Add another test that checks for ‘e’ and draws an ellipse.
2. Notice that the mouseX,mouseX gives the top-left corner of the rectangle/square, but the centre of the circle/ellipse. We can make rectangles use this position as the centre by adding  
   **rectMode(CENTER)** to the setup function (CENTER is the American spelling of centre).
3. There is also a **triangle** function, but we have to work out the x,y coordinates of each **vertex**.
4. The **triangle** function takes 6 arguments, the x,y coordinates of three vertices, **triangle(x1,y1,x1,y2,x3,y3)**
5. The order of the three vertices doesn't matter.
6. You can use the following to draw a small equilateral triangle:

**triangle(mouseX-25,mouseY+20,mouseX+25,mouseY+20,mouseX,mouseY-20)**

1. Add another “cookie cutter” option to your code to draw a triangle when you press “t”
2. **SAVE your code.**