

Bootcamp Day 3

Images, Simple Animation, Fonts

How to draw a rectangle?

How to draw a rectangle?

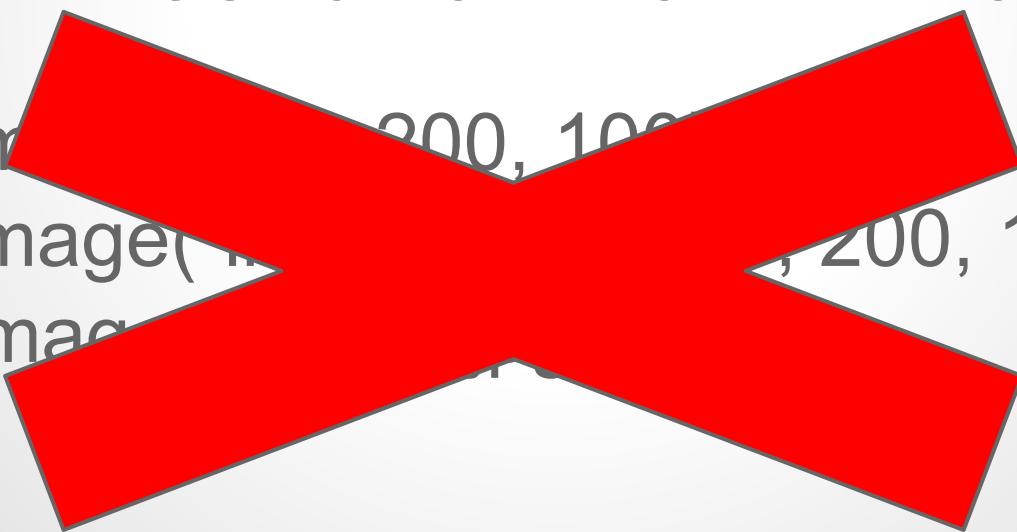
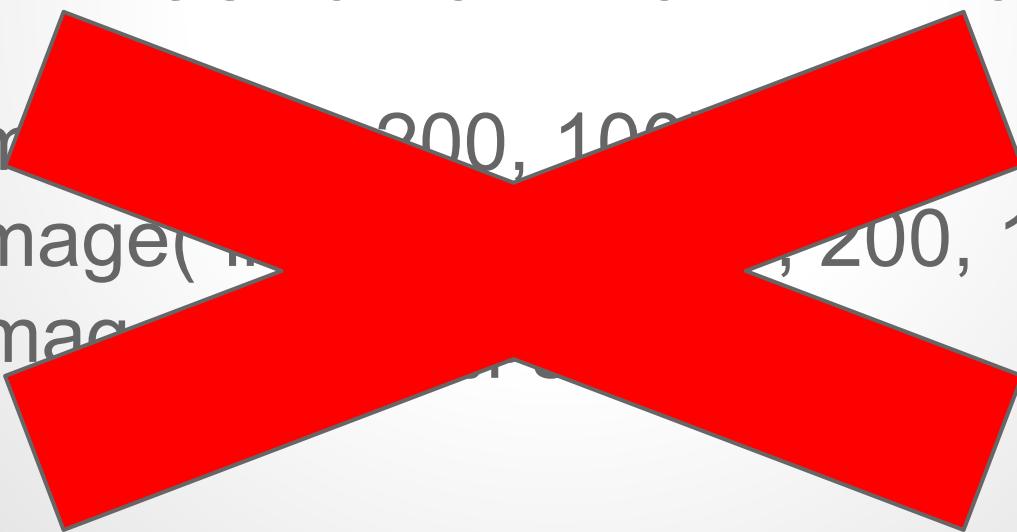
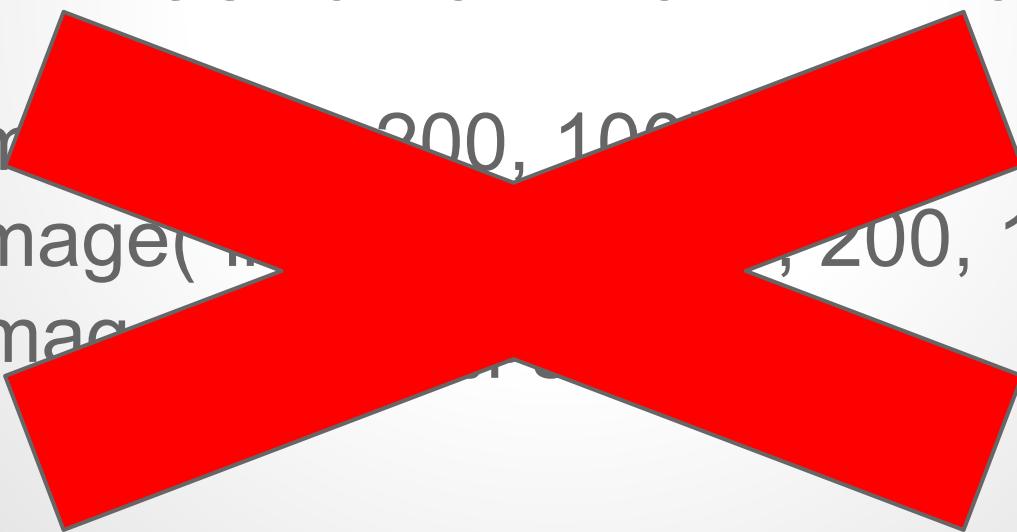
```
rect(0, 0, 200, 100);
```

How to draw an image?

How to draw an image?

- A. `image(0, 0, 200, 100);`
- B. `image("image.jpg", 0, 0, 200, 100);`
- C. `image("image.jpg", 0, 0);`

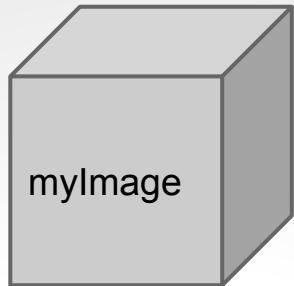
How to draw an image?

- A. image(, 200, 100)
- B. image(, 200, 100);
- C. image(, 200, 100);

Image

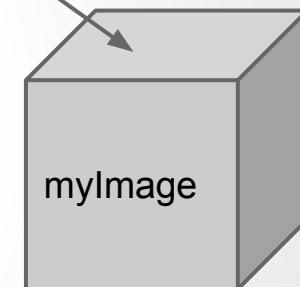
Plmage

```
PImage myImage;  
//Declaring a variable of type Image
```

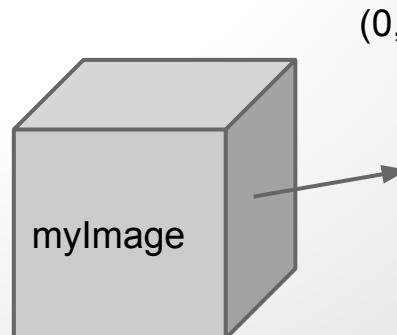


```
myImage = loadImage("image.jpg");  
//Make a new instance of PImage by loading an image file
```

img.jpg →
01010
11011
00100



```
image(myImage, 0, 0);  
//Draw an image to the screen at (0, 0)
```



Images

```
// declare  
PImage myImage;  
  
void setup(){  
// load (in setup)  
myImage = loadImage("filename.jpg");  
}  
  
void draw(){  
// draw it at 0,0 (in draw)  
image(myImage, 0, 0);  
}
```

Example 1

Image Display

Image Property

```
image(myImage, mouseX, mouseY,  
      width/2, height/2);  
      tint(a, b, c, d);
```

Example 2

Image Properties

Animation I

replace numbers with variables

Example 3

Image Increment

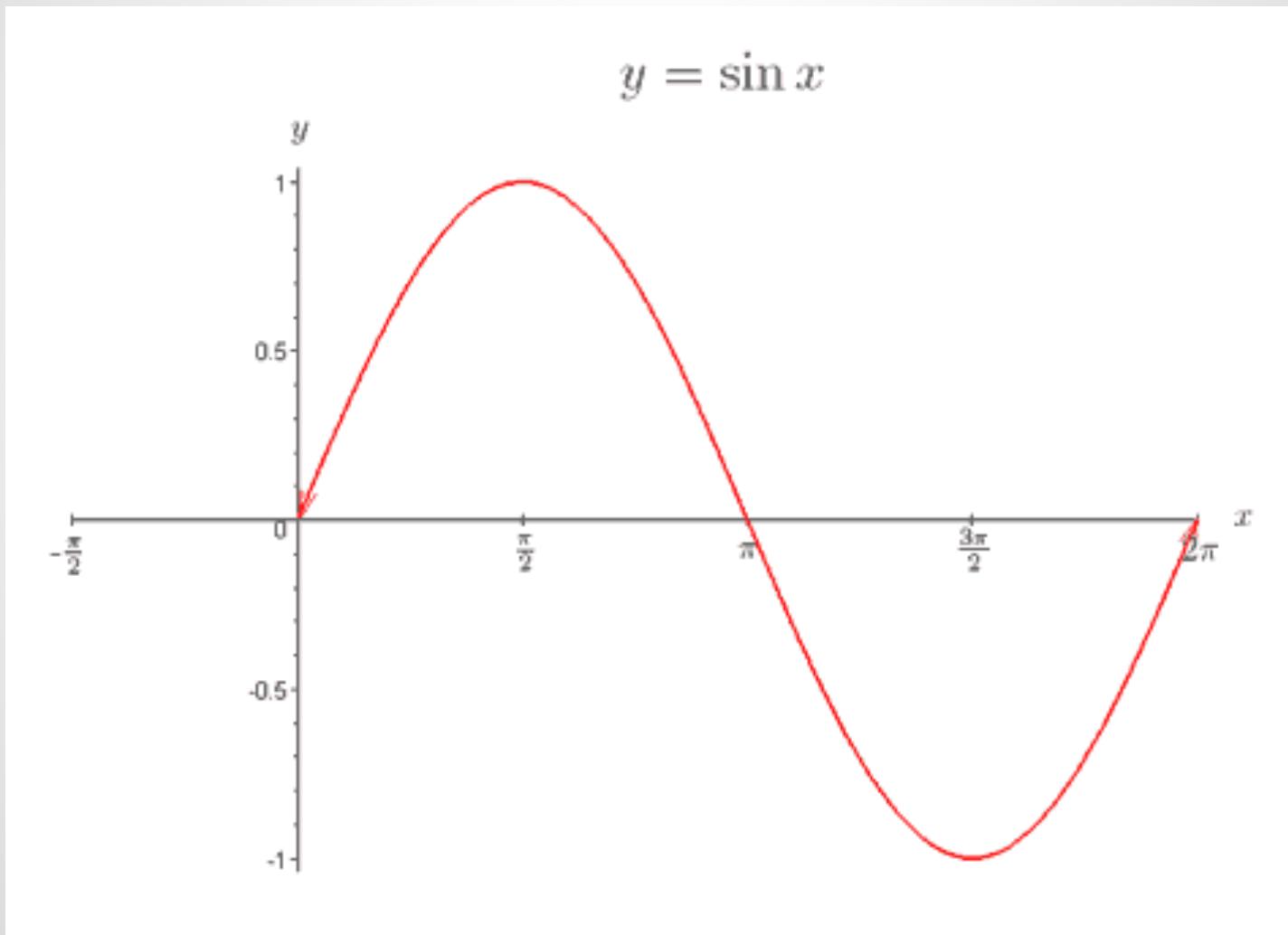
Animation II

trigonometry function

Trigonometry

$\sin()$; $\cos()$;

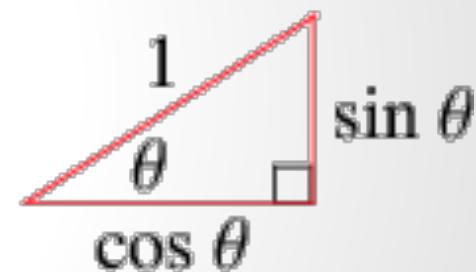
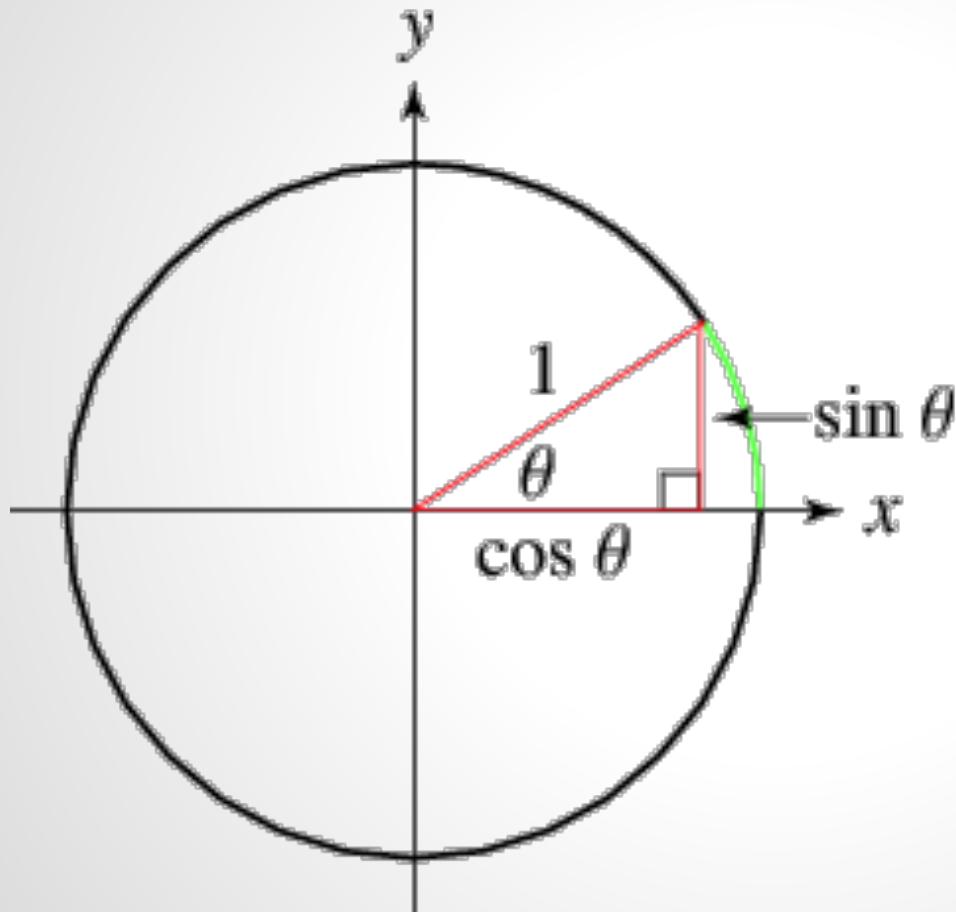
Sine Function



Example 4

heart pounding

Trigonometric Functions



Example 5

moon revolvement

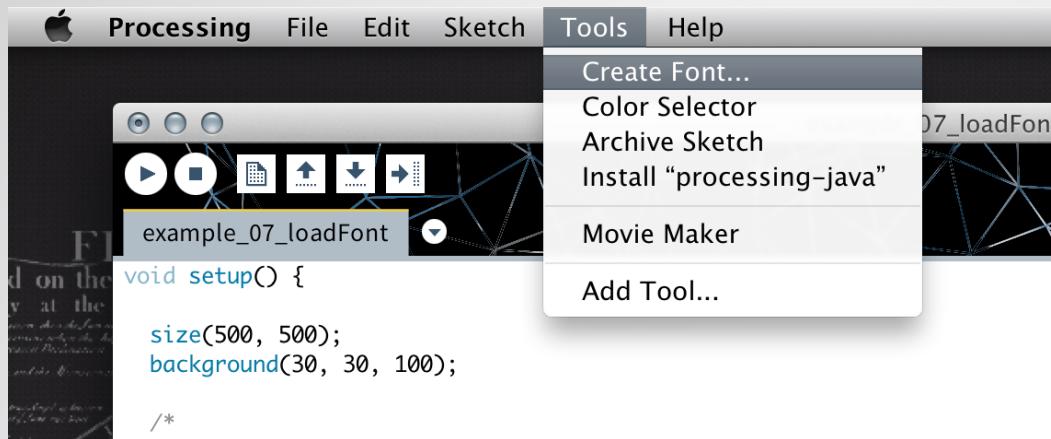
Text Fonts

PFont

Fonts

```
// declare  
PFont awesomeFont;  
  
void setup(){  
// load (in setup)  
awesomeFont = loadFont("Arial-14.vlw");  
}  
  
void draw(){  
// set which font to use. draw it at 0,0 (in draw)  
textFont(awesomeFont);  
text("Hello!", 0, 0);  
}
```

1.



2.

The screenshot shows the Processing IDE with the 'example_07_loadFont' sketch running in the background. In the foreground, a 'Create Font' dialog box is open. The dialog has the following interface:

- Instructions:** "Use this tool to create bitmap fonts for your program. Select a font and size, and click 'OK' to generate the font. It will be added to the data folder of the current sketch."
- Font List:** A scrollable list of font names under the heading 'Serif' (which is currently selected). The list includes: SansSerif, Monospaced, Dialog, DialogInput, ACaslonPro-Bold, ACaslonPro-Bolditalic, ACaslonPro-Italic, ACaslonPro-Regular, ACaslonPro-Semibold, ACaslonPro-Semibolditalic, AGaramondPro-Bold.
- Text Preview:** Displays the text "Forsaking monastic 1" in the selected font style.
- Settings:**
 - Size: 48
 - Smooth
 - Characters...
- File Output:** Filename: Serif-48.vlw
- Buttons:** Cancel, OK

At the bottom of the dialog, it says "Done Saving."

```
myFont = createFont("Helvetica", 24, true);
```

Example 6

Text Display

Example 7

Text Increment

Example 8

Text Trigonometry Movement

Assignment

Ideas:

- Make a GIF with Image and Text whether it is a gift card, proposal card, or simple fun card or
- Do some fancy patterns using Image & Text

Note:

Try to use 3 new functions/keywords that we haven't touched in class. Find them in [reference](#) or google "how to rotate in processing" / "rotate processing"

Example 9

an example of what a GIF would be