

Kickstart 2012

Day 3

Collage!



Review

Recall the structure of a double for loop...

```
for y in range(num1, num2):           #traverse rows
    for x in range(num1, num2):       #traverse columns
        probably getPixel(picture, x, y)
        do something with that pixel
```

Canvas

- `makeEmptyPicture(width?, height?, white)`

Copying

```
def copy(picture):  
    make a canvas
```



Copying

```
def copy(picture):  
    make a canvas  
    initialize targetY
```



Copying

```
def copy(picture):  
    make a canvas  
    initialize targetY = 0
```



Copying

```
def copy(picture):  
    make a canvas  
    initialize targetY  
    initialize targetX = 0
```



Copying

```
def copy(picture):  
    make a canvas  
    initialize targetY  
    initialize targetX  
    for each y in picture (sourceY)
```



Copying

```
def copy(picture):  
    make a canvas  
    initialize targetY  
    initialize targetX  
    for each y in picture  
        for each x in picture (sourceX)
```



Copying

```
def copy(picture):  
    make a canvas  
    initialize targetY  
    initialize targetX  
    for each y in picture  
        for each x in picture  
            find the picture's pixel (sourceX, sourceY)  
            find the color of that pixel & assign it to a variable  
            find the target's pixel (targetX, targetY)  
            set the color of the target pixel to the color
```



Copying

```
def copy(picture):  
    make a canvas  
    initialize targetY  
    initialize targetX  
    for each y in picture  
        for each x in picture  
            find the picture's pixel (sourceX, sourceY)  
            find the color of that pixel & assign it to a variable  
            find the target's pixel (targetX, targetY)  
            set the color of the target pixel to the color  
            increment targetX  
            incremenet targetY
```



Copying

```
def copy(picture):  
    make a canvas  
    initialize targetY  
    initialize targetX  
    for each y in picture  
        for each x in picture  
            find the picture's pixel (sourceX, sourceY)  
            find the color of that pixel & assign it to a variable  
            find the target's pixel (targetX, targetY)  
            set the color of the target pixel to the color  
            increment targetX  
        incremenet targetY
```

show the final result which should be on your canvas

