

CSC 240

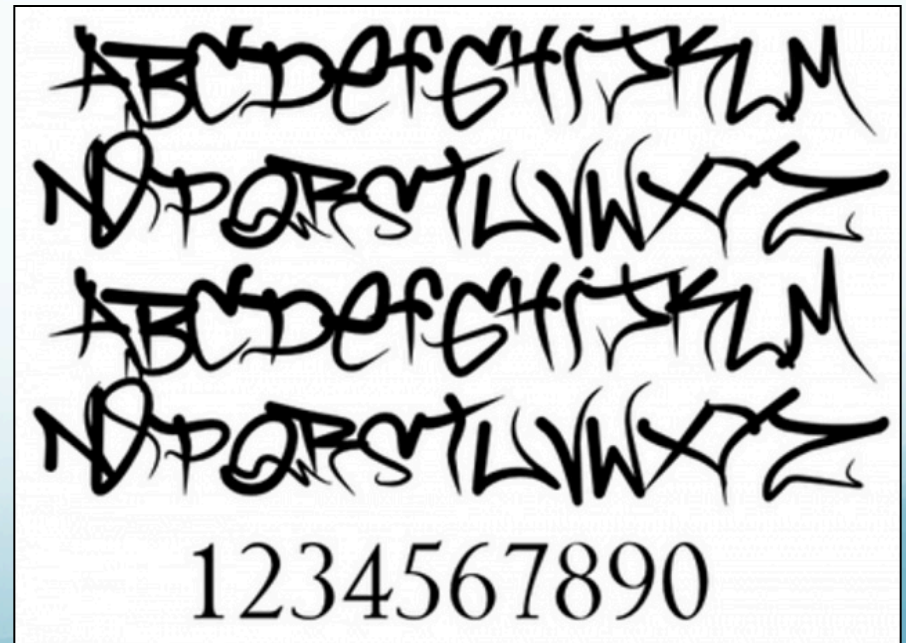
Computer Graphics

Fall 2015
Smith College

Outline: 9/14

- Review of Lab 1
- Line algorithm
- Classes in Python (review)

One more graphics application



Lab 1: example solution

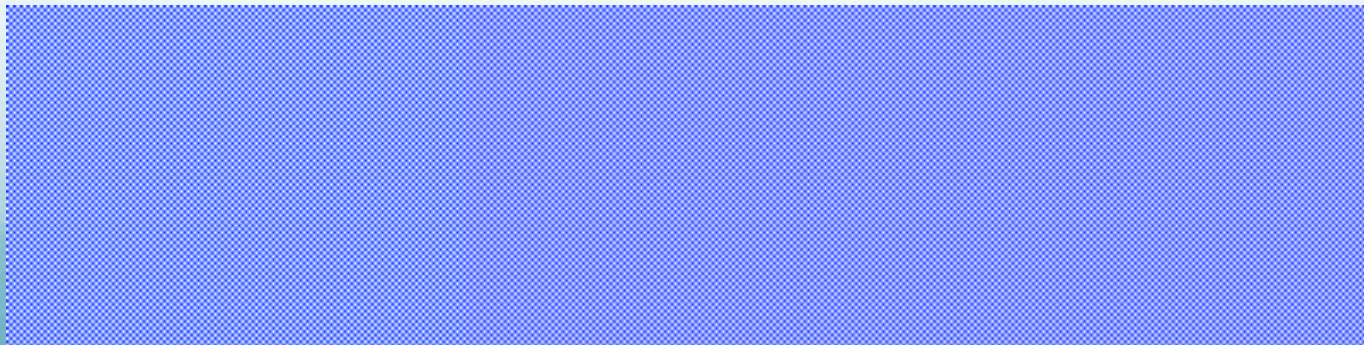
```
def pix_color(x, y):  
    if (x % 2 == 0 and y % 2 == 0) or (x % 2 == 1 and y % 2 == 1):  
        return (0, 0, 255)  
    else:  
        return (255, 255, 255)
```

```
def make_image(width, height):  
    img = raster.Raster(width, height)
```

```
    # loop over all pixels in the image  
    for x in range(width):  
        for y in range(height):  
            color = pix_color(x, y)  
            img.setPixel(x, y, color)
```

```
    img.display()
```

mod operator in Python



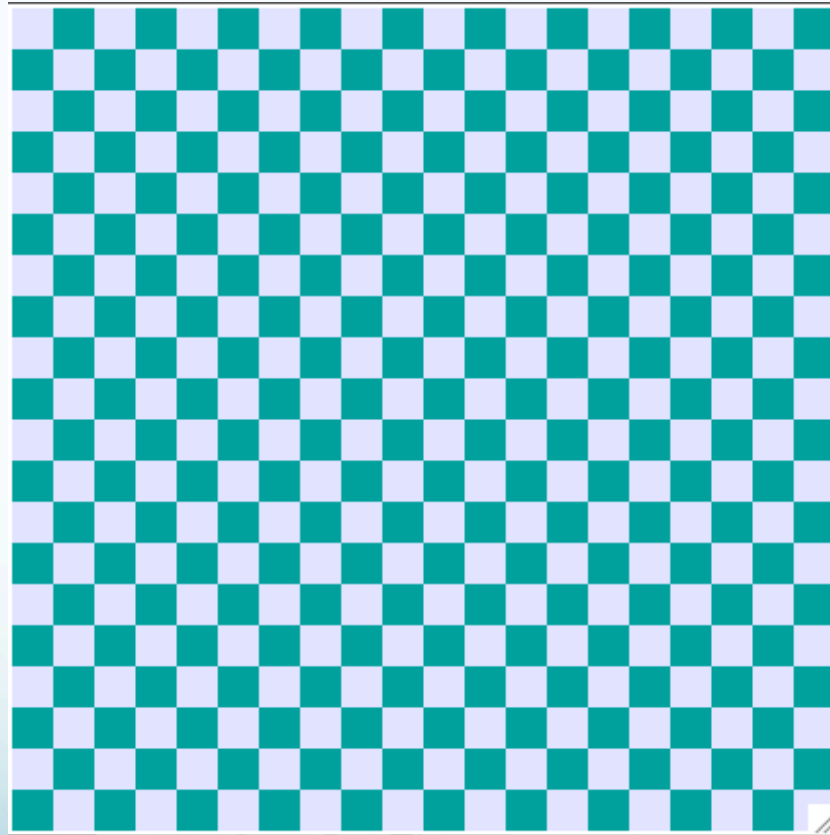
Lab 1: example with bigger squares

```
def make_image(width, height):  
    img = raster.Raster(width, height)  
  
    blockSize = 20  
  
    rowTileNum = 0  
    colTileNum = 0  
  
    for row in range(width):  
        if row % blockSize == 0:  
            rowTileNum += 1  
        for col in range(height):  
            if col % blockSize == 0:  
                colTileNum += 1  
            color = pix_color(rowTileNum, colTileNum)  
            img.setPixel(row, col, color)  
  
    img.display()
```

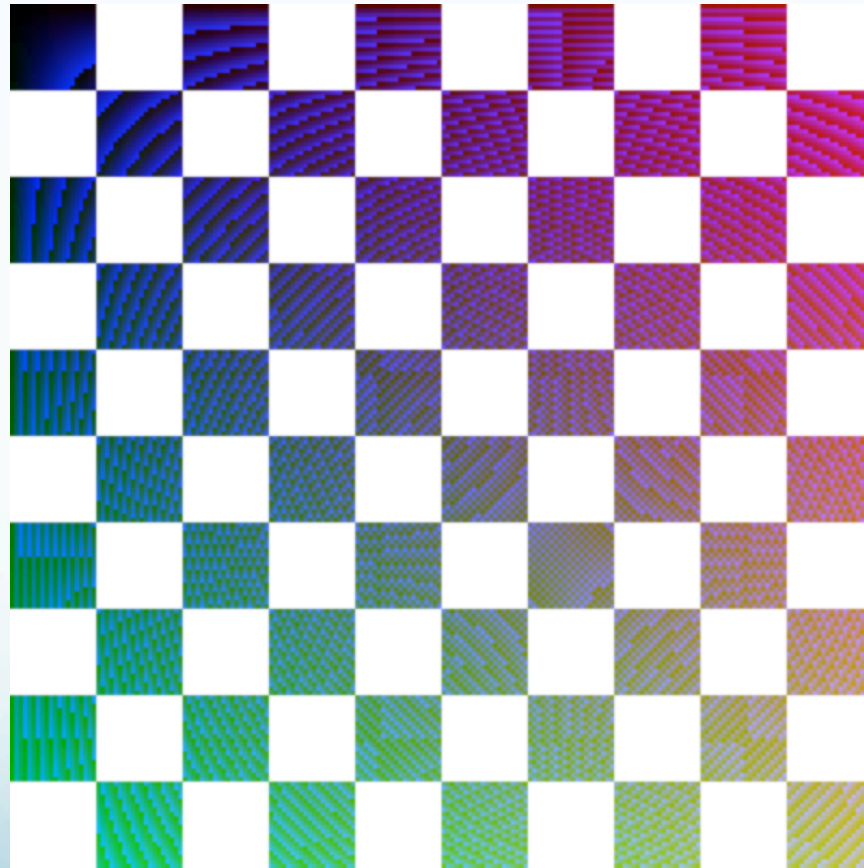
Lab 1: example with bigger squares



Checkerboard examples



Checkerboard examples



Common issues

- Python 2 vs. 3
- Windows: Python not in path
- Commandline
 - use up/down arrows
 - “cd” to change directories
 - “ls” to list folders and files