Task 1: Test Image in CMD or Terminal

```
>>> python                    # Does not work? Google 'how to add python to path'
```
Or,
```
>>> python3
Python 3.7.0 (v3.7.0:1bf9cc5093, Jun 27 2018, 04:06:47) [MSC v.1914 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license" for more information.

>>> import PIL
>>> print (PIL.PILLOW_VERSION)        # This ensures you've installed it
6.0.0
```

You cannot see the version?
if you have PIL already installed, you must uninstall it
`pip install Pillow` or `pip3 install Pillow`
Still does not work? Add `python -m` or `python3 -m` before `pip`
`python -m pip install Pillow`

```
>>> import urllib.request     # To get files off the web
>>> import io                 # To avoid writing a file
>>> URL = 'http://www.w3schools.com/css/trolltunga.jpg'
>>> f = io.BytesIO(urllib.request.urlopen(URL).read())
                                        # Read image into memory
```

If you are running Mac and you are getting a certificate error when running the `BytesIO`
thing, you should run: `/Applications/python\ 3.7/Install\ Certificates.command`
You can also go into `install` folder manually and type `certificates.command`

```
>>> from PIL import Image
>>> img = Image.open(f)
>>> img.show()
>>> img = Image.open(f)
>>> print(img.size)       # Gives (width, height)
(1000, 300)
>>> pix = img.load()      # Sets up access to the pixels of the image
>>> print(pix[2,5])       # Pixels are tuples, mostly
(24, 29, 61)
```

you can set pixels equal to an RGB tuple: `pix[x,y] = (rValue, gValue, bValue)`
Example:
```
# for x in range(img.size[0]):
#   for y in range(img.size[1]):
#     if sum(pix[x,y])==255: pix[x,y] = (255, 0, 0)
# ...
# img.show()
```

Lab1: Command line argument is URL

In each pixel, update RGB values:

- If it's in the bottom third of possibilities (between 0 and 255 // 3), replace it with a 0,
- If it's in the top third of possibilities (between 255 * 2 // 3 and 255), replace it with a 255 (or 254)
- Otherwise, replace it with a 127