Lab:
Day 2b

Project: Chromakey

Exercise 5: Chromakey

Define the function `chromakey(source, background)`, which takes in a a source picture & replaces the green with the background picture!

Instructions:

You can find the pictures we took of you yesterday in front of the green screen on our website:

inst.eecs.berkeley.edu/~cs98-to

under the *chromakey* folder! They are ".png" files! Keep this in mind when loading the file.

Important: Your background has to be at least the size of your source.
****you can crop and scale both pictures to be the same size!****

The Big Picture: Trace through two pictures at the same time, and only replace a pixel of the original picture with the background picture if it is close enough to the color green eventually putting yourself in a really cool place!

STOP
(if you find yourself finishing the labs quickly, you should not be reading this part)

Here's an example in pseudocode:

```
def chromakey(source, background):
    for each y                              #do the rows
        for each x                      #do the columns
            get source pixel sourcePX
            if color of the sourcePX IS green    #???

                get background pixel's color

                set color of sourcePX to be the background color
```

How to we check for green?

```
if(getRed(p)+getBlue(p)< factor*getGreen(p) and
    getGreen(p) >num):
```

Mess around with num and factor to get
best possible result!

Bonus Exercises

- Write a function `notAllowed(picture)` that takes in a picture and creates a red circle with a cross through it. It should be around some action or object that is *not allowed.* Like so:

    You might need to take in additional arguments, such as a radius and a center of the picture.

- Write a function `halfTint(picture)` that takes in a picture and makes half of the picture more red, and half of the picture more blue

- Write a function `tripleTint(picture)` that takes in a picture and makes 1/3 of the picture more red, and 1/3 of the picture more blue and the last 1/3 of the picture more green.