ASSIGNMENT 2
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Input Images

input image 1

input image 2

Methodology

numberOfPixels

The number of pixels is simply:

```
image.shape[0] * image.shape[1] (height * width)
```

averagePixel

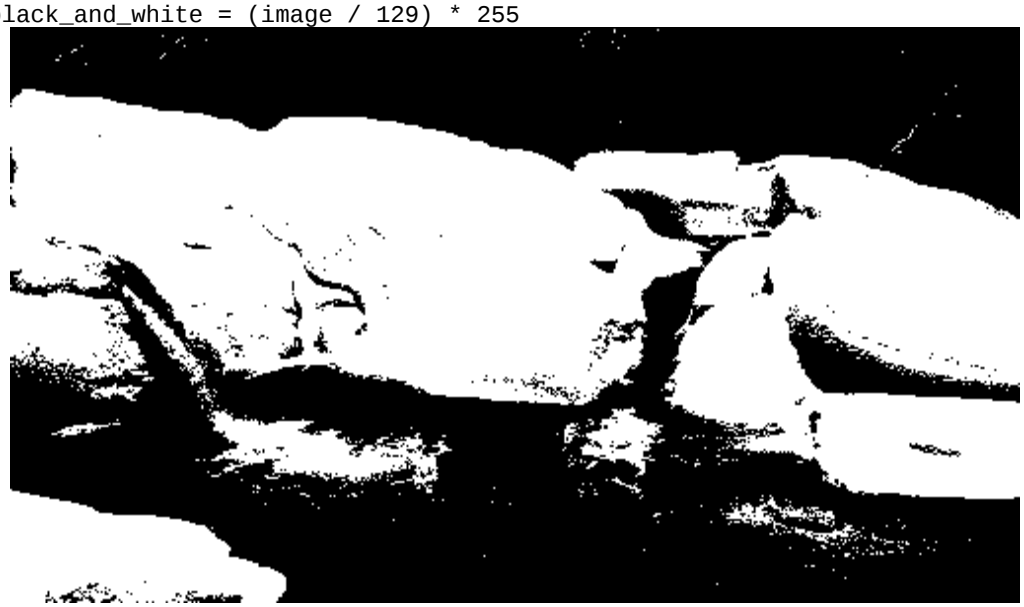
Summing pixel values is easy in numpy and then just divide by number of pixels:

```
int(average = np.sum(image) / numberOfPixels(image))
```

convertToBlackAndWhite

To convert all pixel values to 0 (when 128 or lower) and 255 (above 128): divide by 129 (all values will be 0 or 1) and then multiply by 255.

```
black_and_white = (image / 129) * 255
```



averageTwoImages

To add the matrices, I first convert them to int (to prevent uing8 overflow). After dividing by 2, I convert them back to uint8:

```
average_image = ((image1.astype(int) + image2.astype(int)) / 2).astype(np.uint8)
```

flipHorizontal

`numpy` supports horizontal flip natively with the `fliplr` function:

```
flipped = np.fliplr(image)
```