โค้ด เปรียบเทียบ

```python
import cv2
import numpy as np

#อ่านภาพ
image = cv2.imread('Image/cat.jpg')

imArray = np.array(image)
cat = np.array(image)

print(image.shape)

#แปลงเป็น Grayscale
for j in range(len(cat)):
    for i in range(len(cat[0])):

        #raed va;ues from all colors
        R = cat[j][i][0].astype(np.uint16)
        G = cat[j][i][1].astype(np.uint16)
        B = cat[j][i][2].astype(np.uint16)

        # calculate average value
        Gray = (R + G+ B) / 3

        # return value to the pixel
        imArray[j][i][0] = Gray
        imArray[j][i][1] = Gray
        imArray[j][i][2] = Gray

```

```python
for j in range(len(cat)):
        for i in range(len(cat[0])):
            # red values from colors
            R = cat[j][i][0]
            G = cat[j][i][1]
            B = cat[j][i][2]

            Gray = (0.3*R + 0.59*G + 0.11*B)

        #return value to the pixel แบบรับทั้งหมด
        cat[j][i][:] = Gray

# แสดงภาพ Grayscale
cv2.imshow("Original Image", image)
cv2.imshow("Grascale Image", imArray)
cv2.imshow("Second equation", cat)
cv2.waitKey(0)
cv2.destroyAllWindows()
```

ผลลัพธ์

Original

Grayscale

Second equation (สมการที่สอง) (174, 290, 3)