```
import numpy as np
import cv2 as cv
import matplotlib.pyplot as plt
img = cv.imread("cat1.jpg")
def split(img):
    img1 = img[:img.shape[0]//2, :img.shape[1]//2]
    img2 = img[:img.shape[0]//2, img.shape[1]//2:]
    img3 = img[img.shape[0]//2:, :img.shape[1]//2]
    img4 = img[img.shape[0]//2:, img.shape[1]//2:]
    return img1, img2, img3, img4
img1, img2, img3, img4 = split(img)
plt.subplot(2,2,1)
plt.imshow(img1, cmap='gray')
plt.axis("off")
plt.subplot(2,2,2)
plt.imshow(img2, cmap='gray')
plt.axis("off")
plt.subplot(2,2,3)
plt.imshow(img3, cmap='gray')
plt.axis("off")
plt.subplot(2,2,4)
plt.imshow(img4, cmap='gray')
plt.axis("off")
plt.show()
img_merge = np.concatenate((np.concatenate((img1, img2), axis=1),
np.concatenate((img3, img4), axis=1)), axis=0)
plt.imshow(img_merge, cmap='gray')
plt.axis('off')
plt.show()
```