

```

import cv2
import numpy as np
import matplotlib.pyplot as plt
from google.colab import files

uploaded = files.upload()
filename = next(iter(uploaded))
image = cv2.imread(filename, cv2.IMREAD_GRAYSCALE)

A = 1.5
high_boost_kernel = np.array([
    [-1, -1, -1],
    [-1, A + 8, -1],
    [-1, -1, -1]
], dtype=np.float32)

sharpened = cv2.filter2D(image, -1, high_boost_kernel)

plt.figure(figsize=(10, 5))
plt.subplot(1, 2, 1)
plt.imshow(image, cmap='gray')
plt.title("Original Image")
plt.axis('off')

plt.subplot(1, 2, 2)
plt.imshow(sharpened, cmap='gray')
plt.title(f"High-Boost Sharpened (A={A})")
plt.axis('off')

plt.tight_layout()
plt.show()

```



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- **i15.PNG**(image/png) - 273421 bytes, last modified: 5/7/2025 - 100% done
Saving i15.PNG to i15.PNG

Original Image



High-Boost Sharpened (A=1.5)

