

# Computer Vision 2017 Fall Homework #1 Report

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## Part 1.

Language :

- Python 3.5.2

External Libraries :

- Numpy v1.13 : Arrays operations
- Matplotlib 2.0.2 : Show Image
- Pillow 4.2.1 : Image I/O

Benchmark :

- Original Image : Lena.bmp
- Original Size : 512x512

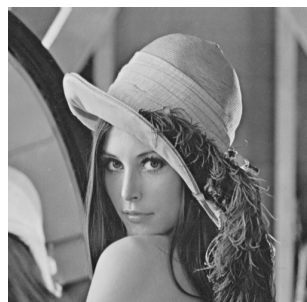


Results :

- Upside-down



- Rightside-left



- Diagonally-mirrored



## Part 2.

Software :

- Adobe Photoshop CC 2017

Benchmark :

- Original Image : Lena.bmp
- Original Size : 512x512

Results :

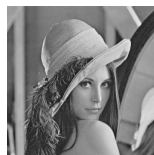
- Rotate 45 degree clockwise

Operations : 影像 > 影像旋轉 > 任意 > 45度順時針 > 確定



- Shrink in half

Operations : 影像 > 影像尺寸 > % > 50% > 確定



- Binarized at 128

Operations : 影像 > 臨界值 > 128 > 確定

