Write a code from scratch to perform
the following tasks on the two test samples:
[test1.png, test2.png]
[without using any libraries related to graphics]

① Scaling

$$\begin{bmatrix} b_x & 0 \\ 0 & b_y \end{bmatrix} \begin{bmatrix} x \\ y \end{bmatrix}$$

$(b_x, b_y) = (-1.75, -1.75)$
$(-1.5, 1)$
$(1, -1.5)$
$(1.75, 1.75)$
$(1.5, 1)$
$(1, 1.75)$

② Shear

$$\begin{bmatrix} 1 & \tan\theta \\ 0 & 1 \end{bmatrix} \begin{bmatrix} x \\ y \end{bmatrix}$$

$$\theta = +60°, +45°, +30°, +15°, -15°, -45°, -60°$$

③ Rotation

$$\begin{bmatrix} \cos\phi & -\sin\phi \\ \sin\phi & \cos\phi \end{bmatrix} \begin{bmatrix} x \\ y \end{bmatrix}$$

$$\theta = +60°, +45°, +30°, +15°, -15°, -45°, -60°$$

④ Reflection

(about x-axis and y-axis)