SSN COLLEGE OF ENGINEERING, KALAVAKKAM

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CS6513 - COMPUTER GRAPHICS LAB

Lab Exercise 5 2D Composite Transformations

Write a program in C++ using OPENGL to perform the following 2-Dimensional composite transformations.

a)Perform rotation and scaling of an object

Input: Rotation angle θ, Fixed point (xf,yf) and scaling factors sx and sy.
Output: The object should be rotated by the given angle with respect to the fixed point (xf,yf) and scaled by the given scaling factors.

b)Perform reflection and shearing of an object

Input: The reflecting axis and the shearing factor s.
Ouput: The object should be reflected with respect to the given axis and then sheared.

Note:
1.Use homogeneous coordinate matrices.
2.Output should contain before transformation and after transformation objects in different colors.