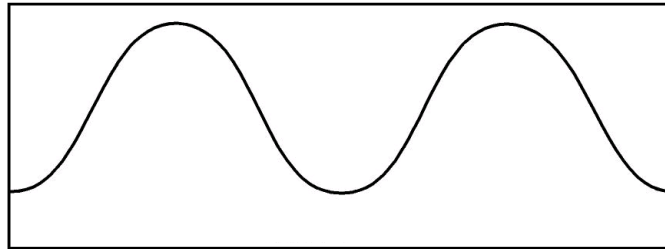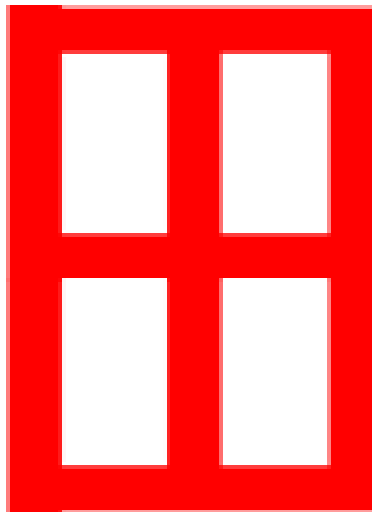1. List four applications of computer graphics (describe each application briefly)

2. Write an OpenGL program that draws the following shapes into a 500×500 window. The background should be white.
   a ● A blue line from (0,0) to (400, 400)
   b ● A red triangle with vertices (25, 300), (30, 350), and (60, 400)
   c ● A purple quad with vertices (50, 50), (50, 200), (200, 200), and (200, 50)
   d ● A magenta hexagon with an appropriate scale
   e ● A green star with an appropriate scale
   f ● A cyan cylinder with an appropriate scale
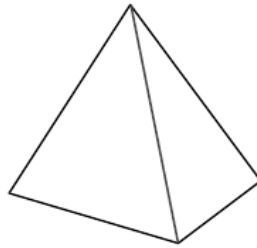   g ● A yellow cube with an appropriate scale

3. Write an OpenGL program to draw the following sine wave.

4. Write an OpenGL program to draw the following figure. Assume any missing data.

5. Write an OpenGL function "Render_Pyramid" to draw the following pyramid. Assume any missing data.

6. Write an OpenGL program to draw the following half cylinder.

Prof. Khaled F. Hussain