CG Lab Test

1. Create the following 2D delta shape object shown in figure A. 2D delta-shaped objects that travel in straight paths across the display, ricocheting(defleting) whenever they hit the side of the display window. You have to work on mouse operations to generate circular “ripples”, with keyboard operations used to set the color of each ripple. When any delta-shaped object is contained within a like colored (or invisible) ripple, then the object freezes in place until the ripple dissipates. Ripple colors are set via the appropriate keys to white (‘w’), red (‘r’), yellow (‘y’), green (‘g’), cyan (‘c’), blue (‘b’), magenta (‘m’), or invisible (‘n’) as shown in figure B.

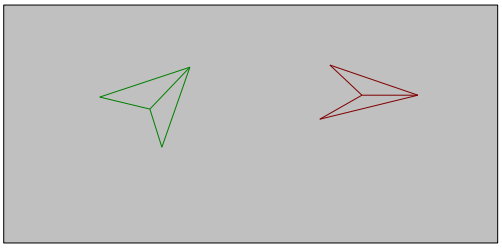

Fig: A

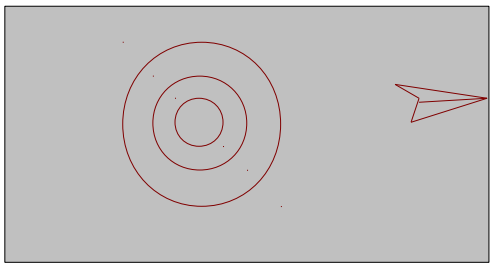

Fig: B

2. Consider the function for drawing a dot $f(x)=e^{|-x|}\ \cos(2\Pi x)$, where x varies from xlow to xhigh, f(x) takes on the value of ylow to yhigh. Find appropriate scaling and translation factors so that the dot will be lie in a screen window with width W pixel and heighe H pixel.