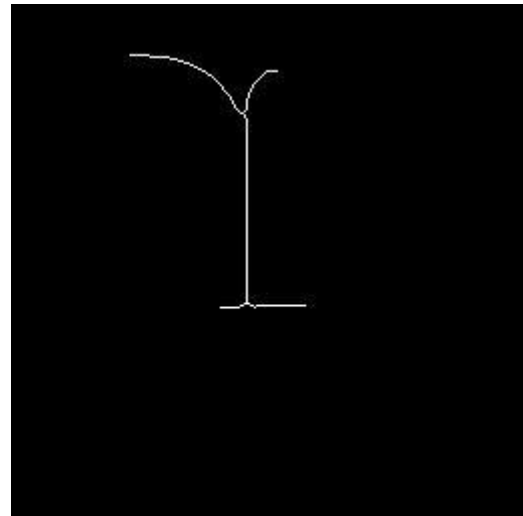
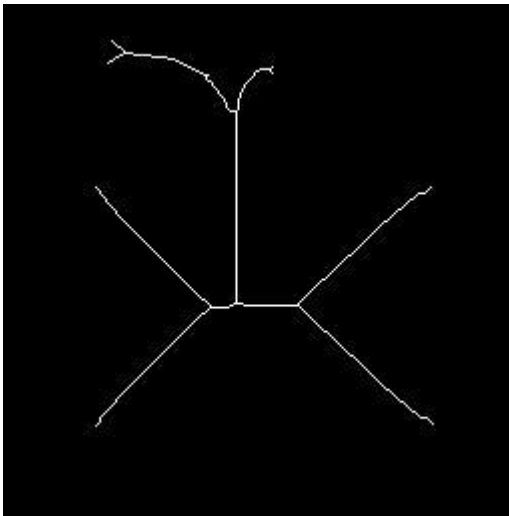
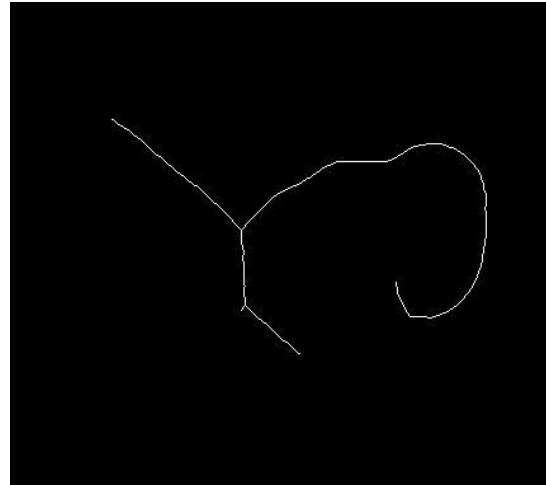
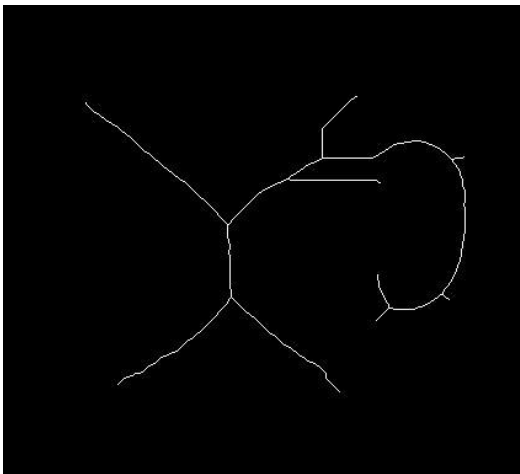


Q1)

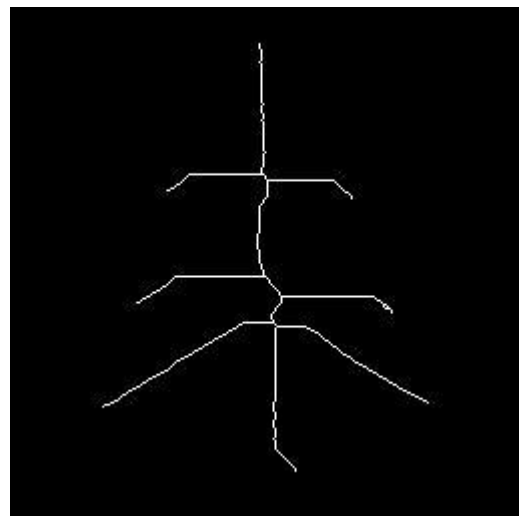
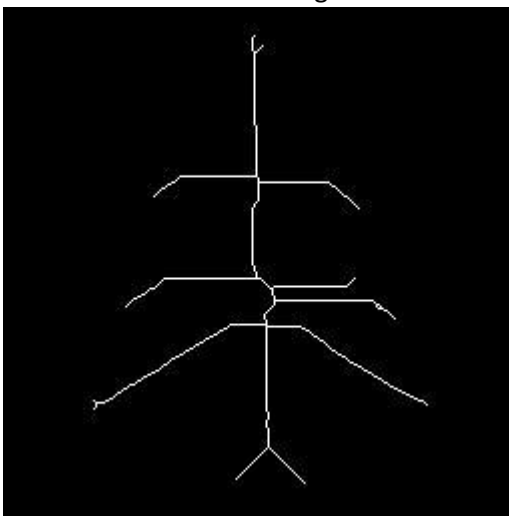
a) Apple Skeleton and Thinning



b) Cup Skeleton and Thinning



c) Tree Skeleton and Thinning



Q2) Here I have used shrink as a morphological function to calculate the total number of stars in the image. The shrink function shrinks the fully filled image into one pixel in the number of times is Infinite and a shrinks the hollow figure by reducing its boundary to 1 pixel. Here as the stars are fully filled objects , so it reduces the stars into one pixel. After that I iterated each pixel in the image and counted the number of white pixels in the image . The final count is the total number of stars in the image.

So in total there are 111 stars in the image.