Assignment 5: Curve Drawing

1. Write a program to draw a circle centred at (-30, 40) with radius 50 points. Observe the difference in the following cases: (i) one pixel is one point, and (*ii*) a block of 4×4 pixels is a single point.

2. Write a program to draw an ellipse.

3. Use the midpoint method and symmetry consideration to scan convert the parabola $y = 100 - r^2$ over the interval $-10 \le r \le 10$.