Assignment 1: (1 week)

1. Convert an Applet coordinate into standard Cartesian coordinate.

2. Based on Cartesian coordinate (in Question1) construct a square grid (Fig.1) with origin (0,0) at the centre of screen. Use (a, b, c) as background colour and (m, n, p) as grid colour where values of a, b, c, m, n, p are set by the programmer. Draw X axis and Y axis with colour other than background colour. Include zoom -in or zoom-out facility. In this figure, a point is shown using square. Circle may be used alternatively instead of square. Keep size of the square/circle as variable and find the most suitable size based on eye estimation.

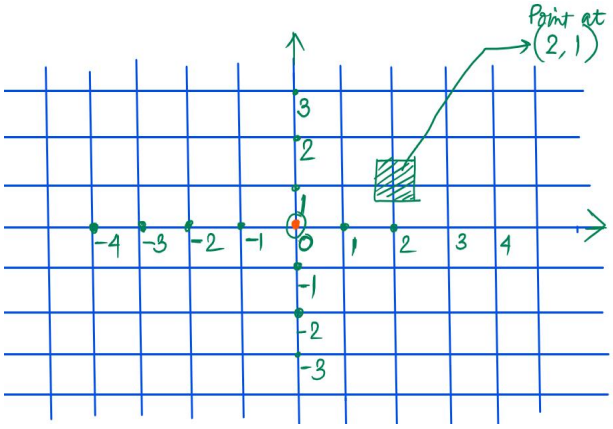

Fig.1: Grid construction

3. Develop a method plotpoint (x, y, C) to check if any point (x, y) can be plotted on the grid at appropriate position with colour C. Hence, draw basic shapes (line, square etc.) on the constructed grid by calling plotpoint() only.