

### *Pseudo-code of the Homework 1*

Draw a convex polygon;

Get the smallest rectangle to cover the convex polygon;

(x, y) = The length and width of the smallest rectangle;

If  $\text{getFloat}(x / (1.5 * Rs)) > 2 / 3$

    column =  $[ x / (1.5 * Rs) ] + 2$ ;

Else

    column =  $[ x / (1.5 * Rs) ] + 1$ ;

If  $\text{getFloat}(y / (\sqrt{3}Rs)) > 0.5$

    row =  $[ y / \sqrt{3}Rs ] + 2$ ;

Else

    row =  $[ y / \sqrt{3}Rs ] + 1$ ;

For (m = 1 to column)

    For (n = 1 to row)

        If  $((m\%2) == 0)$  {

            The center coordinates of a circle =  $[(0.5 * Rs) + (m * 1.5 * Rs), (n * \sqrt{3}Rs)]$ ;

        } Else {

            The center coordinates of a circle =  $[(0.5 * Rs) + (m * 1.5 * Rs), (n * \sqrt{3}Rs) + \frac{\sqrt{3}Rs}{2}]$ ;

        }

If (the center coordinates of a circle inside the convex polygon) or (the circle intersect the convex polygon)

    Draw the circle with the convex polygon;