SimpleCPP Graphics

- All shapes have penUp when initialised

- You use initCanvas(); or initCanvas("name", height_pixels, width_pixels); to make a canvas

- Coordinate system has origin at top left and x is well positive x but y is inverted

- To make multiple turtles and talk to them-

```
Turtle n1, n2, n3;
n1.forward(100);
n2.right(90);
```

- In general for shapes-

```
//shape_type name(arguments);
Circle c1(100, 100, 20) //x and y coordinates of centre and then the radius
c1.forward(200);
Rectangle r1(100, 200, 30, 15); //x and y coordinates of centre and then length and breadth
Line l1(20, 30, 30, 40); //x1, y1, x2, y2 of endpoints
Text t1(100, 120, "Poha puri boi")//Again coordinates of centre and then text encoded
```

- Important commands

(You cannot scale or rotate text though)

```
s.moveTo(x,y); //Moves centre of shape s to (x, y)
s.move(x,y); //Moves centre of shape by x along x axis and by y along y axis
s.scale(20); //Scales s by a factor of 20
s.rotate(3); //Rotates anticlockwise by 3 *radians*
s.setColor("name_of_some_common_colour");//Sets the colour for the border of the shape
s.setColor(255, 255, 0); //RBG values of colour for border
s.setFill(boolean_statement); //Only for Rectangle and Circle //If true, then when you say setColor the next time, it will, fill. Wowie
s.getX(); s.getY(); //return the x and y coordinates
s.getScale(); //Shows the current scale being used on s
s.imprint(); //Creates an imprint of the shape at that point
getCLick(); //Returns the coordinates of place where user clicked
//The format is 65536*x+y. So to get actual x and y coordinates you do-
int posn=getClick();
int x=posn/65536; int y=posn%65536;
```