```
void setup() {
//size(500, 500); //test environment
size(displayWidth, displayHeight); //wall = viewport
frameRate(2);
}

void draw() {

  // GLOBALS
  background(#FAF5ED); //off-white (aka wall-colored)
  smooth(); //anti-alias
  stroke(#777777, 100); //graphite-ish, 25alpha
  strokeWeight(1);
  noFill();

  ////////////////////////////////
  //Draw line
    line(width, 0, width * 0.75, height);
    strokeWeight(2);


  ////////////////////////////
  //Generate 100 random points

    //init variables
    int rows = 100; //rows
    int cols = 2;  //cols
    int i = 0;

    //create a 2d array for x1,y1 coordinates
    float [][] points = new float [rows][cols];
    // float [][] points = new float[100][2];

    // forLoop to create 100 points at random locations
    for (i=0; i<100; i++) {
      points[i][0] = random(width-50);  // puts a random int<width-50 in row
      points[i][1] = random(height-50); //puts a random int<height-50 in row
      println(points[i][0] + ",", points[i][1]); //coord log
      stroke(0);
      point(points[i][0], points[i][1]); //"place fifty points at random"
    }

    //Rewrite x-value of pt1 to a random point in the right most quarter of t
    points[0][0] = random((width/4)*3,width);
    println(points[0][0] + ",", points[0][1]);
```

```
    //NOTE
      /* If I had more time I would have rewritten points[0][0] to be generat
      `   Unfortunately,  I don't not remember that much high school math, and
      */

  ////////////////////////////
  //Create the arc

  //calculate dist between pt1 & pt7
  //dist = sqrt of (x1-x7)2 + (y1-y7)2

  float dist = sqrt(sq(points[0][0] - points[6][0]) + sq(points[0][1]-points[
  //println(dist);

  //draw the arc
  stroke(#777777, 100);
  arc(points[0][0], points[0][1], dist, dist, PI+QUARTER_PI, TWO_PI+PI);

  //saveFrame("305_###.png");

} //END draw
```