There is a \( m \times n \) rectangular matrix whose top-left (start) location is \((1, 1)\) and bottom-right (end) location is \((m, n)\). There are \( k \) circles each with radius \( r \). Find if there is any path from start to end without touching any circle. The input contains values of \( m, n, k, r \) and two array of integers \( X \) and \( Y \), each of length \( k \). \((X[i], Y[i])\) is the center of \( i \)-th circle. Source: Directi Interview. Examples: Input : \( m = 5, n = 5, k = 2, r = 1, X = \{1, 3\}, Y = \{3, 3\} \) Output : Possible. Here is a path from start to end point. Input : \( m = 5, n = 5, k = 2, r = 1, X = \{1, 1\}, Y = \{2, 3\} \) Output : Not Possible. "Can we draw a circle using Path object?" yes: Path#addCircle (float x, float y, float radius, Path.Direction dir) – pskink Sep 11 '15 at 8:11. Hey, you got me there. I have hence updated the question. Because the point the circle is being added will be included in the Path object. And paths.addPath(path) simply adds it to the previous list of paths (of drawn lines). Hence undo becomes easy and natural as well. Hence the solution. Thanks @pskink for the original solution. P.S: Today I realized, a break from an unfinished project is not a good practice but in a way it sometimes is to some people, for you are out of familiarity and can now think the normal way which you couldn't before. share | improve this answer | follow. Turning Our Circle Into A Path. There is a little online tool that can help you create paths out of circles (you can try it out here), but we’re going to do everything from scratch so we can find out what’s really going on behind the scenes. To make a circular path, we’re going to actually make two arcs, i.e. semicircles that complete the circle in one path. As you’ve probably noticed in the SVG above, the attributes \( CX, CY \) and \( R \) respectively define where the circle is drawn along the X and Y axis, while \( R \) defines the radius of the circle. The \( CX \) and \( CY \) create the center of the circle... Great circles vs small circles. Now that you have a visual understanding of great circles. Here’s a definition of what a great circle is: A great circle is a circle on the globe such that the plane passing through the sphere’s center is equal to the circumference of the Earth. Alternatively, a great circle is where the radius is equal to that of the globe representing the shortest distance between two points on the surface of the earth. In basic terms, imagine you’re cutting into an orange. You can cut them at any angle – north-south, east-west, diagonally. While map projections distort these routes confusing passengers, the great circle path is the shortest path between two far locations. This is why pilots fly polar routes saving time and distance. And this is why pilots often fly over Greenland.