How the Astronaut Escapes - by Xyxyx Yxy

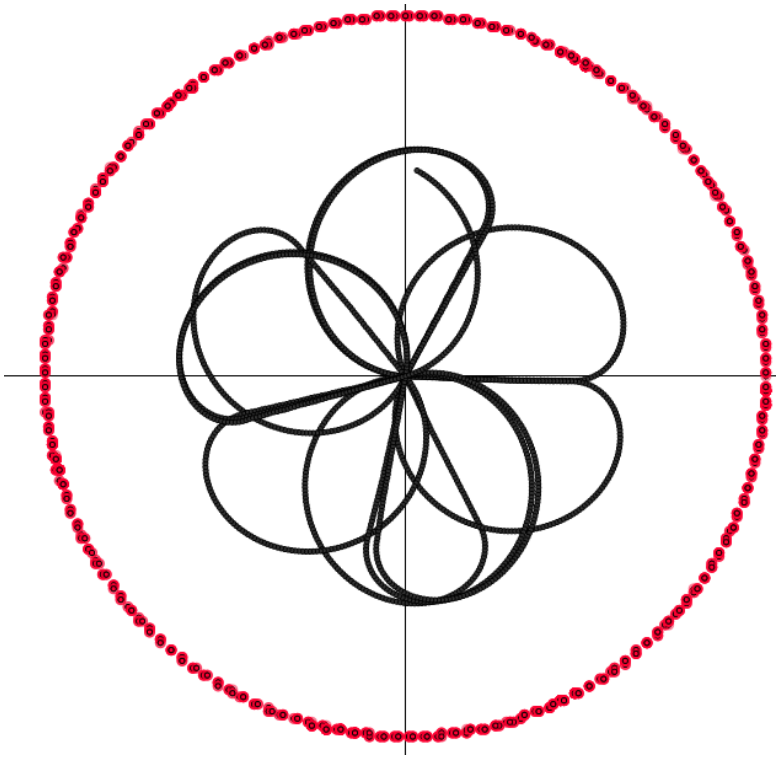
The problem:

> An astronaut's rocket has landed on the middle of a circular lake on the planet Zorkon. Unfortunately, there is an angry Zorkoid at the shore who is eager to capture and eat the astronaut. The Zorkoid can't swim, but it can run along the shore at a speed faster than the astronaut can propel the rocket through the water. The astronaut needs to get to the shore to launch the rocket and escape for the planet Zorkon. To do this, the astronaut adopts a strategy that says "swim directly away from wherever the Zorkoid is." The zorkoid's strategy is to run along the shore towards the side of the lake where the astronaut is. If the line containing the astronaut and the zorkoid is a diameter of the lake's circle, then check whether the zorkoid is less than a radius of the circle away, or not. If it is less than a radius away, the zorkoid sits still, if it is further than a radius away, the zorkoid runs in one direction or the other along the shore.

We will consider first the astronaut's strategy as given above with various speed multipliers for the Zorkoid and draw these conclusions:
(include exposition here...blah blah blah
Here are instructions for importing your Path.txt files to Geogebra:

- Download and install Geogebra from https://www.geogebra.org
- Open the spreadsheet form Geogebra.
- Right-click on the spreadsheet and choose "import Date File"
- Navigate to your file in your directory structure and import it.
- Select the x and y columns so they're highlighted and right-click for the context menu: chose "create polyline."

For example, with a speed multiplier of blah, we get a path like this:



Based on those conclusions we may modify the strategy by blah blah blah.
blah blah blah,