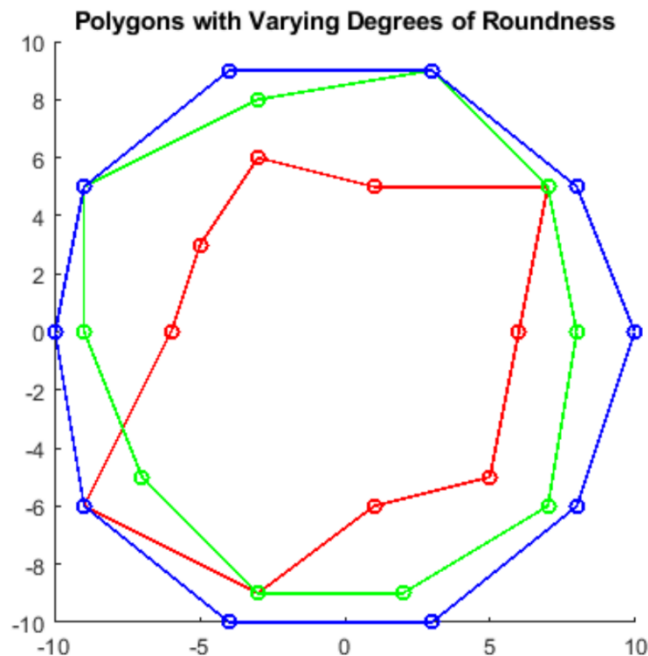# Polygon Roundness

Given a list of ordered points forming a polygon, define a calculable metric for measuring the roundness of the polygon and implement this calculation. Keep in mind there is no one "correct" definition for roundness, you are free to think of and develop your own, so long as you explain your reasoning (in the form of an inline code comment or README file).

Polygons with Varying Degrees of Roundness

Your program should return roundness values for the polygons to the left for which the relations below are true. These polygons will be the first three of the input file. `roundness(blue) > roundness(green) > roundness(red)`

You will be given an input file with a list of polygons. Each line of the file describes one polygon. A line contains 2n floating point numbers separated by spaces, where n is the number of vertices of the polygon. The first number is the X coordinate of the first point, the second number the Y coordinate of the first point, the third number the X coordinate of the second point and so on. Two adjacent points in the input file are connected. The last point is connected to the first point.

For each line in the input file your program should output one line containing a number representing the roundness of that polygon.

Sample input	Sample output
5.0 5.0 -5.0 5.0 -5.0 -5.0 5.0 -5.0	2
-1.0 0.0 1.0 0.0 0.0 1.0	1