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determining when a point is inside a polygon

 ${\bf Canonical\ name} \quad {\bf Determining When APoint Is Inside APolygon}$

Date of creation 2013-03-22 15:22:24 Last modified on 2013-03-22 15:22:24

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Numerical id 7

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Entry type Topic Classification msc 51-00

 ${\it Related\ topic} \qquad {\it WhenIs APoint Inside ATriangle}$

There are many algorithms to determine whether a point is inside a polygon or not:

- Connect the point at infinity with a line. If this line crosses the edges of the polygon an odd number of times, the point is inside the polygon. Otherwise it is not.
- Calculate the winding number of the polygon with the point.

These two algorithms can be used for any closed curve.