
Subject: Re: some geometry questions.

Posted by [Karl\[1\]](#) on Thu, 30 Mar 2006 05:29:29 GMT

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You might do a google search for "signed areas" and/or see:

http://softsurfer.com/Archive/algorithm_0101/algorithm_0101.htm#Triangles

The idea is to take the vector cross product of something like $(v_4-v_1) \times (v_2-v_1)$ and compare it to $(v_2-v_3) \times (v_4-v_3)$. If the signs of the z components are different, the lines cross.

A much bigger hammer to use is IDLgrTessellator. If you call the AddPolygon method with those 4 points and then call the Tessellate method, the tessellator will always return 2 triangles, but it will return a 5th point if the lines cross, since the 5th point is needed to define the point of intersection.
