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Subject: Re: Volume by four vectors

Posted by [Sander Roosendaal](#) on Thu, 14 Oct 2004 16:52:34 GMT

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Many thanks, Ed.  
Just the hint I needed.

Ed Schmahl wrote:

- > Dear Sander,
- >
- > Interesting geometry problem. The volume you're talking about is an
- > irregular polyhedron--the generalization of a cube. You can dissect
- > the volume into
- > irregular tetrahedra, each bounded by 4 triangles, two triangles on
- > each face.
- > Pick an origin inside of the hexahedron, and since there are 6 faces,
- > there
- > will be 12 (irregular) tetrahedra, each with a common vertex at the
- > origin.
- > Obviously the location of the origin is irrelevant, but if it is
- > outside of
- > the hexahedron, some of the tetrahedra will have negative volumes.
- >

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hartelijke groeten,

Sander  
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