

Download Can A Vector Have A Component Greater Than Its Magnitude

Best Answer: No but it can have a component equal to its magnitude. If it is a 2D vector the magnitude is found by: $\sqrt{x^2 + y^2} = \text{magnitude}$ x, y are the horizontal and vertical components. The reason that it can't be greater is that when you join the orthogonal vectors from head to tail, it forms a right angled triangle, and the hypotenuse is always greater than its sides. Originally Answered: Can a vector have a component greater than the vectors magnitude? The answer to this depends on the vector space of which the vectors are a part. If, as is most usual, the vector space is Euclidean space then the magnitude of the vector is the square root of the sum of the squares of the vectors. No a vector may not have a component greater than its magnitude. When dealing with highschool physics problems, the magnitude is usually the sum of two or more components and one component will ...
No
A vector comprises its components, which are orthogonal. If just one of them has magnitude and direction, then the resultant vector has magnitude and direction.
Example:-