Normalized Vector

The normalized vector of $\mathbf{X}$ is a vector in the same direction but with norm (length) 1. It is denoted $\hat{\mathbf{X}}$ and given by

$$\hat{\mathbf{X}} \equiv \frac{\mathbf{X}}{|\mathbf{X}|},$$

where $|\mathbf{X}|$ is the norm of $\mathbf{X}$. It is also called a unit vector.

SEE ALSO

Unit Vector

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CITE THIS AS:

Weisstein, Eric W. "Normalized Vector." From *MathWorld*--A Wolfram Web Resource. https://mathworld.wolfram.com/NormalizedVector.html

SUBJECT CLASSIFICATIONS

Algebra › Vector Algebra ›