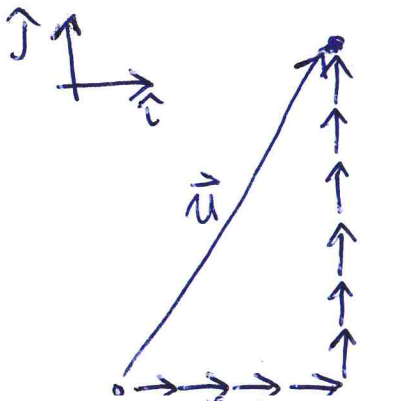


What are vectors?
And what are they used for?

Another way to describe the same vector \vec{u} would be $\vec{u} = 4\hat{i} + 6\hat{j}$



Where \hat{i} is a unit step in the x-direction, and \hat{j} is a unit step in the y-direction.

Whether you're describing how to get between two points on a map, or two points in the Cartesian plane, the key concept to remember is the **reference system** you use to give the directions:

$\vec{u} = 4\text{km } \hat{E} + 6\text{km } \hat{N}$ with respect to compass directions

$\vec{u} = (4, 6)$ with respect to the standard xy-coord. system

$\vec{u} = 4\hat{i} + 6\hat{j}$ in terms of the unit steps \hat{i} & \hat{j}

Vector components only make sense when you know the **coord. system** or **basis** as mathematicians would say. What is a basis? Go to bit.ly/basisme to find out!

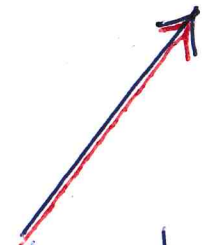
This zine about vectors is the first in a series of pocket explainers—little koans you can take on a walk.

To find other math zines search for #mathzine on the twitters

The author of ^{this zine} is Ivan Savov who is followable on tw. @aminireference



VECTORS



What-a-dem?

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