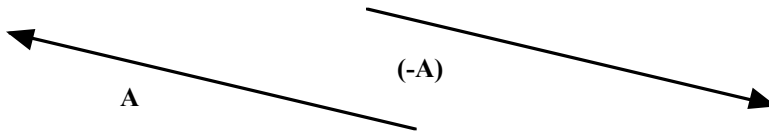
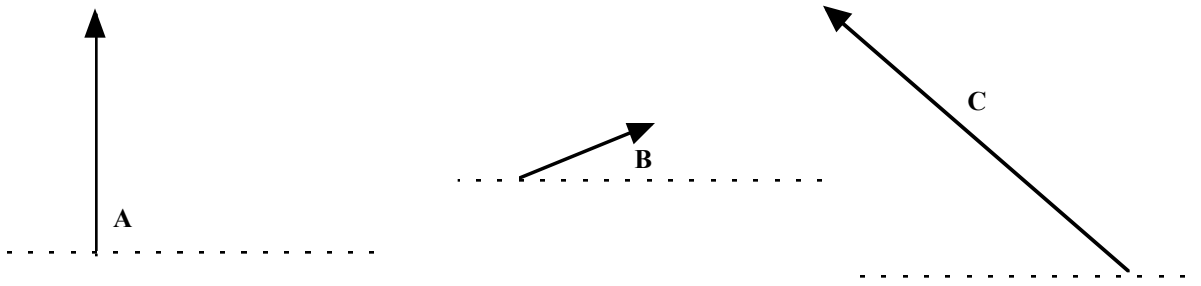


What if we want to subtract vectors by the head-to-tail method? The negative of a vector has the same magnitude, but it is oriented in the opposite direction of the original vector.



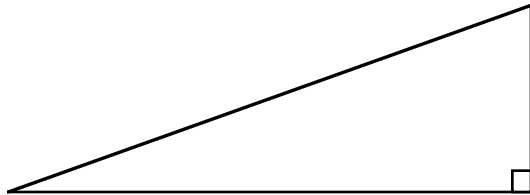
What if you multiply a vector by a scalar? That's easy! It just affects the magnitude, not the direction. so if vector **C** looks like this then $2C$ looks like $-1/2C$ is:

See, I told you it was easy. Now do the following vector operation $A + 2B - 1/2C = R$



The component method. In this method you must break each vector down into its x and y components. In order to do this you need to know a little bit about trigonometry.

TRIG REVIEW -- (use the following space for notes) sin, cos, tan (SOH - CAH - TOA)



In order to use this method, your vectors need to be oriented on an x,y axis. Basically, it's a matter of breaking down each vector into its x and y components and then adding all the x components together for the x component of the resultant and adding all the y components together for the y component of the resultant.

Example:

