

Physics 1114 - General Physics I

Quiz #17 - 2012.10.05

Solutions

1. How is momentum defined? Describe what momentum represents.

Momentum, \vec{p} is defined as $\vec{p} = m\vec{v}$. Momentum, since it is related to mass and velocity directly, tell us how much work will be required to speed up, or slow down, an object. This can also be tied to the momentum version of Newton's Second Law.

2. Given an isolated system, what must be true about momentum?

Momentum must be constant, i.e. internal forces cannot change the total momentum of a system.