

Physics 1114 - General Physics I

Quiz #6 - 2012.06.13

Solutions

1. State Newton's First Law.

Every object continues either at rest or in constant motion in a straight line, unless it is forced to change that state by forces acting on it.

2. If an object is traveling with a constant velocity \vec{v} along a perfectly circular path of radius R , what is the relationship between the object's acceleration \vec{a} its velocity v and the radius of the orbit R ?

The relation is that the magnitude of acceleration, a , satisfies the relation $a = v^2/R$.