
PHYS 211: Quiz 10

June 6, 2012

1. A block of mass 1kg sits on a table at height 1m off the ground. What is the gravitational potential energy of the block **w.r.t the table**? What is it **w.r.t the ground**? Now if I remove the table and hold the block at the same height, and then let it go, what is its speed when it hits the ground?

2. The magnetic force on a charge moving in a magnetic field is always perpendicular to the direction in which the charge moves. What is the work done by such a magnetic field? Likewise, when a stone is swung around in circles at the end of a string, the tension provides the centripetal acceleration. What is the work done by the tension in one revolution?