

HOMEWORK 10 Due data 4/22

1. A particle falls to earth starting from rest at a great height (many times the earth's radius). Find the time required to fall the first half of the distance to the earth, in terms of the total time take to reach the earth. You will probably need the integral tables in Appendix E to do this.
2. If the sun were to contract to half its present radius, its potential energy would decrease. By how much? The mass of the sun is around 2×10^{30} kg, the radius of the sun is 7×10^8 m, take it to be uniform density.