

New HW problems for Thursday, 3/27

7-5: Use the mass and radius of the earth as given in section 7.4 to calculate how much faster a clock in Denver runs than does a clock in Washington, D.C. Denver is 1600m higher than Washington, D.C.

7-6: [optional] Of course, the earth also spins on its axis, so that neither city in 7-5 is standing still... Estimate the relative velocity between the two cities, and use this to estimate the size of the time dilation effect you would expect from special relativity. Do we need to consider this effect as well?