PHYS-330 - Classical Mechanics - Fall 2017

Homework 8

Due: 21st Novermber 2017 by the start of class. Anything later will be considered late. Late assignments will be subjected to 10% deduction each day late. The late day starts by the end of class when the assignment is due.

Instructions: Complete all of the questions below. You are encouraged to use Jupyter Notebooks to complete any numerical work and written. While the use of python is encouraged, you can use any programming language you want. You can either email me your assignment or provide me with a hard copy in class.

1. 10.22 Taylor
2. 10.28 Taylor
3. 10.44 Taylor
4. Imagine a top whose spin axis remains horizontal and processes at a constant rate around a vertical line (i.e. the z-axis). The top is a uniform disc of radius 2.0 cm fastened to a light spindle the centre being 2 cm from the pivot. If the top is spinning at a rate of 20 revolutions per second, find the period for steady horizontal precession.
5. 11.13 Taylor