In-Class Topics, Tuesday, Nov. 14

Bold and italicized items we did not have time for

Angular Momentum Presentation/Demonstration

1. Emma
    a. Real inertial navigation systems in airplanes, including pitch, yaw, and roll.
    b. What torque does it take to roll (not pitch or yaw) the front wheel of a bicycle?
2. We got out the gyroscope again to support what Emma presentation.

Need more Clarity on Statics

3. Problems 1 and 2 (both statics problems) on Problem Set 9 are revealing misunderstandings about the careful application of forces and torques

Kinematic Chain Presentations (some carried forward from Nov. 7)

4. Rebecca & Jack, N3R.2, p. 52, a graphical solution and an algebraic solution are both possible
5. Brian, Theory Presentation, The Fundamental Theorem of Calculus
6. Brian, Presentation/Derivation, Uniform Circular Motion, including application to solar system orbits

N5 Presentation

7. Trey, N5M.12, p. 83, the drag coefficient

N6 Presentation

8. Will & Hexi, N6B.7, p. 99, lots of practice making free-body diagrams

N7 Decided to Postpone to Monday

9. Brian, will introduce unit vectors and some other N7 concepts

Plan Problem Set 10

10. Problem Set 10, due Friday, 2023-10-17
    a. More problems to reinforce N4
        N4M.5, N4M.8
    b. An easy and hard problem from N6
        N6T.9, N6A.1