Chapter 8 review for the TEST

1. Know the following vocabulary words: Angular acceleration, angular velocity, angular displacement, radian, degree, grad, lever arm, center of mass, linear velocity, linear acceleration, moment of inertia, net torque, rotational, Newton’s second law or rotational equilibrium, static equilibrium, centrifugal “force”, Coriolis “force”, motion of objects in the correct hemispheres, motion of winds in the correct hemispheres, rotating frames of reference and equilibrium.
2. Do pages 222 – 224 in the book problems:

49-50, 53-54, 56-60, 67-69, 72-76, & 81-83

1. Practice Moment of Inertia problems and explain why the formulas for calculating the moment of inertia are different for objects of different shapes.
2. Imaan whose mass is 40 kg, sits 1.6 m from the center of a seesaw. Steve, whose mass is 52kg, wants to balance Imaan. How far from the center of the teeter-totter should Steve sit?
3. You stand on the pedal of a bicycle. If you have a mass of 65 kg, the pedal makes an angle of 35° above the horizontal. If the pedal is 18 cm from the center of the chain ring, what angle measure should you use when calculating torque?