ANGULAR MOMENTUM AND NEWTON'S SECOND LAW

● Remember: Newton's Second Law, _____, can be re-written in terms of Linear Momentum: _____

    - The Rotational version, _____, can also be re-written, in terms of Angular Momentum: _____

EXAMPLE: A small object, 10 kg in mass, spins at 180 RPM in a circular path of radius 5 m. If a constant torque of 80 N m is applied to the object, in trying to stop it, how long will it take for the object to come to a complete stop?

PRACTICE: ANGULAR MOMENTUM / FORCE TO ACCELERATE

PRACTICE: A solid disc of mass M = 40 kg and radius R = 2 m is free to rotate about a fixed, frictionless, perpendicular axis through its center. You apply a constant, tangential force on the disc's surface (as shown), to get it to spin. Calculate the magnitude of the force needed to get the disc to 100 rad/s in just one minute.