Quiz - Le 15   Name: _____

A rigid body rotates in the horizontal plane about a fixed point A with a constant angular velocity of 4 rad/s. The mass of the object is 10 kg and the mass moment of inertia of the body about its center of gravity is 2 kg-m^2. The distance between point A and the center of gravity is 0.5 m.

1. Draw a picture of the system and fill in the blanks.

    I_G = _____

    m = _____

    $r_{G/A}$ = _____

    ω = _____

    α = _____

2. What is the angular momentum of the system about point A?

3. Determine the velocity of point B in the figure below using vector algebra.