

### Force Acceleration I – Problem 4

A drum having a radius of 5 ft and weighing 161 lbs has a radius of gyration with respect to an axis perpendicular to the paper through the center of mass,  $G$ , of 2 ft. A couple of magnitude  $C = 400$  ft-lbs is applied as shown.

- Determine the acceleration of the center of mass,  $G$ .
- Determine the magnitude and direction of the friction force.

