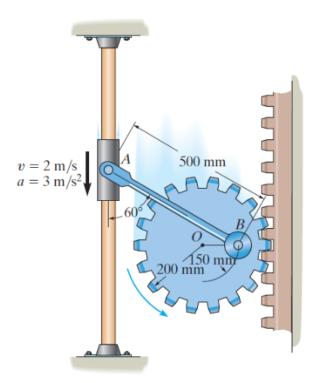
2) The collar is moving downward with the motion shown. Determine the angular velocity and angular acceleration of the gear at the instant shown as it rolls along the fixed gear rack.

Clearly label your coordinate system(s).



10 marks