

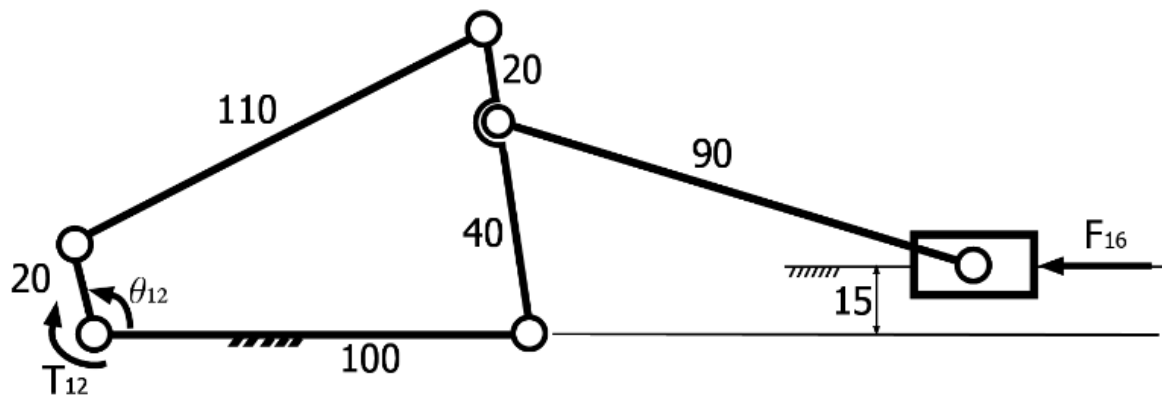
ME 301 Theory of Machines I Project 2

1- For the given mechanism

a- Derive Kinematic equations (position velocity and acceleration) for a given input rotation and Static force equations for input torque for the given force condition.

b- Using Matlab or excel find and plot the position of prismatic joint. θ which varies from 0° to 360° with 1° increment and a constant velocity 10 rad/s

b- Using Matlab or excel find the torque needed to keep system in static equilibrium at each increment



!!!! What you should submit

- A word file including
 - a) Title page
 - b) Kinematic and force calculations for the mechanism. (use equation editor or clean hand writing scan)
 - c) Matlab results for position, velocity, acceleration and actuator torque
 - d) Discussion about the results
- Matlab m file or excel xml file including

All codes you use

Put all files in a rar folder.