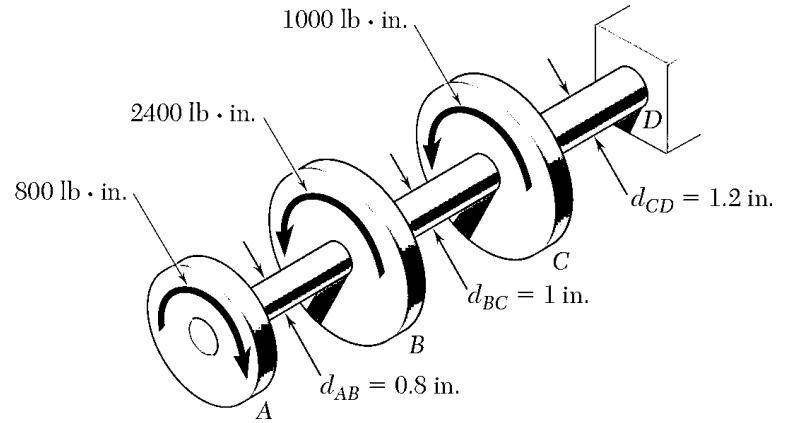


- 1) GIVEN: Solid steel shaft with pulleys spaced every 6 in and torques as shown.
 $G_{\text{steel}} = 11.2 \times 10^6 \text{ psi}$ (B10.9)

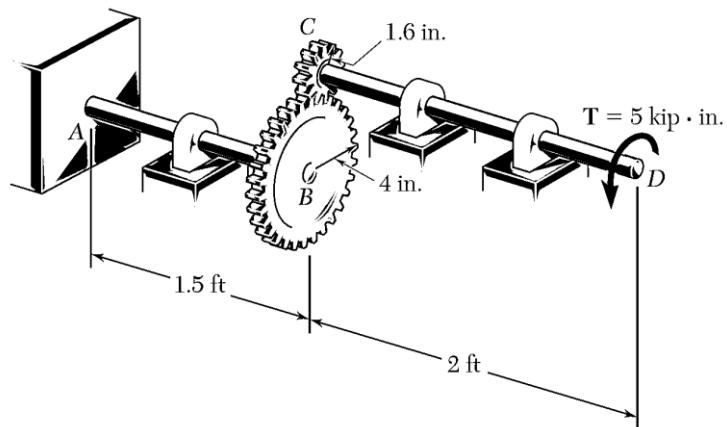


REQ'D: (a) Torque in each segment

(b) Maximum shear stress in shaft. In which segment does it occur?

(c) The angle of twist at end A of the shaft. Indicate direction of twist.

- 2) GIVEN: $\varnothing 2.0$ in solid steel shafts and gears as shown.
 $G_{\text{steel}} = 11.2 \times 10^6$ psi



REQ'D: (a) Torque in each segment.

(c) Max shear stress in shafts.

(b) Angle and direction of twist at points B and D.