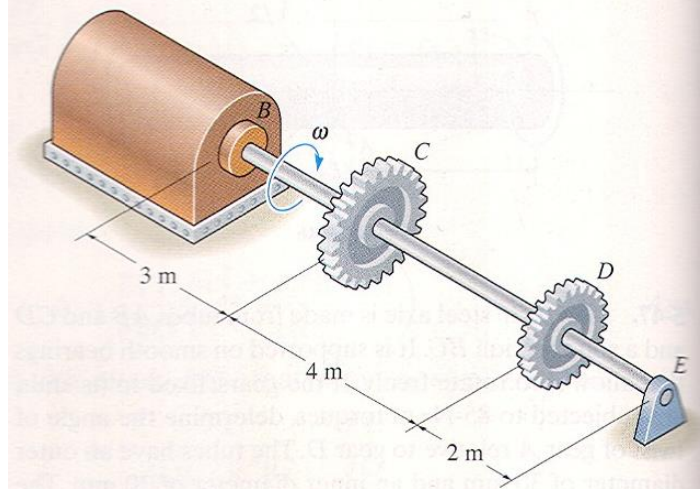


MAK 205  
QUIZ 3  
17 Ekim 2006

Adı ve Soyadı:

Numarası:

**5-53.** The turbine develops 150 kW of power, which is transmitted to the gears such that  $C$  receives 70% and  $D$  receives 30%. If the rotation of the 100-mm-diameter A-36 steel shaft is  $\omega = 800$  rev/min., determine the absolute maximum shear stress in the shaft and the angle of twist of end  $E$  of the shaft relative to  $B$ . The journal bearing at  $E$  allows the shaft to turn freely about its axis.  $G = 75$  GPa.



**Prob. 5-53**