

Homework H10 – Comments

ME 323 – Su 2025 – cmk

- Many people had difficulty in handling the contact force between gears B and C. As we discussed in class, the meshing of two gears does not transmit a torque, rather it transmits a force. You were guided to view the worked-out gear/shaft problem in the lecture book in preparation for this homework set.
- The contact force between gears B and C form an equal and opposite force pair. Because of this, the contact force on B will produce a couple on B which is *opposite in sign* from the couple on C created by the contact force. The most dominant mistake on this problem was in getting that sign incorrect. If you ended up with zero torque in shaft component (2), that was likely due to sign errors in the couples described above.
- Be sure to check the units on your answers. This becomes more critical as the problems that we work produce more complicated algebra in the solution.