Homework H01 – Comments

ME 323 – Su 2025 – cmk

- You were asked to check your units on the answers for this problem. In this case, simply state that an answer that involves the symbolic expression $p_0 d$, and in using SI units, this expression has units of $(N/m) \times (m) = N$, as expected. Such checks on your final answers helps you track down algebra errors in your work. No points were subtracted here on this problem for not checking units; this will not be true in future assignments.
- This problem has a two-force member (BCD). The implication of this is that you know the direction of the reaction forces acting on BCD (along the line of BD). It is important to take advantage of this whenever possible. It becomes crucial to do so on complicated structures. Here, the structure was relatively simple, so the advantage of this was not so apparent.
- When asked to write a vector answer in vector form, please use UNIT VECTOR notation, and NOT bracket notation.
- Pin joints, built-in connections at walls and other physical constraints should NOT be part of your FBDs. The reaction force/couples represent the influence of these constraints on the members of the structure. Recall that the "F" in "FBD" stands for "free"; that is, you cut the member "free" from its constraints and replace those physical constraints with the appropriate forces and couples.