

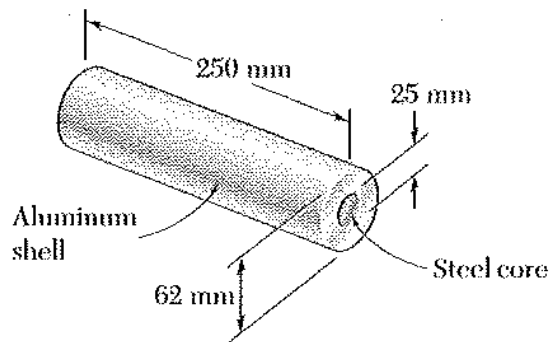
ME 208 QUIZ 1

Q1	Q2	TOTAL

Name:

No:

- 1) Compressive centric forces of 160 kN are applied at both ends of the assembly shown by means of rigid plates. Knowing that $E_s = 200$ GPa and $E_a = 70$ GPa, determine a) the normal stresses in the steel core and the aluminum shell, b) the displacement (δ) of the assembly.



- 2) In a standard tensile test, a steel rod of 22-mm diameter is subjected to a tension force of 75 kN. Knowing that $\nu = 0.3$ and $E = 200$ GPa, determine (a) the elongation of the rod in a 200-mm gage length, (b) the change in diameter of the rod.

