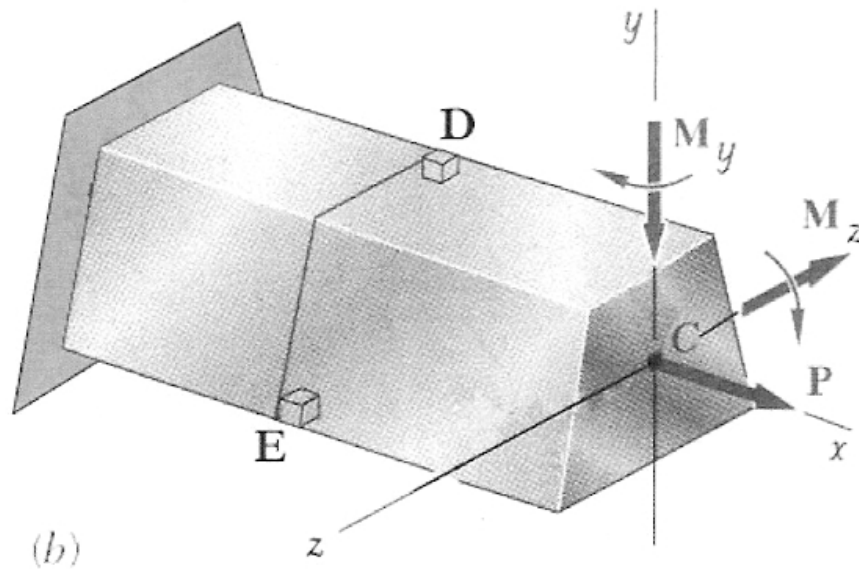
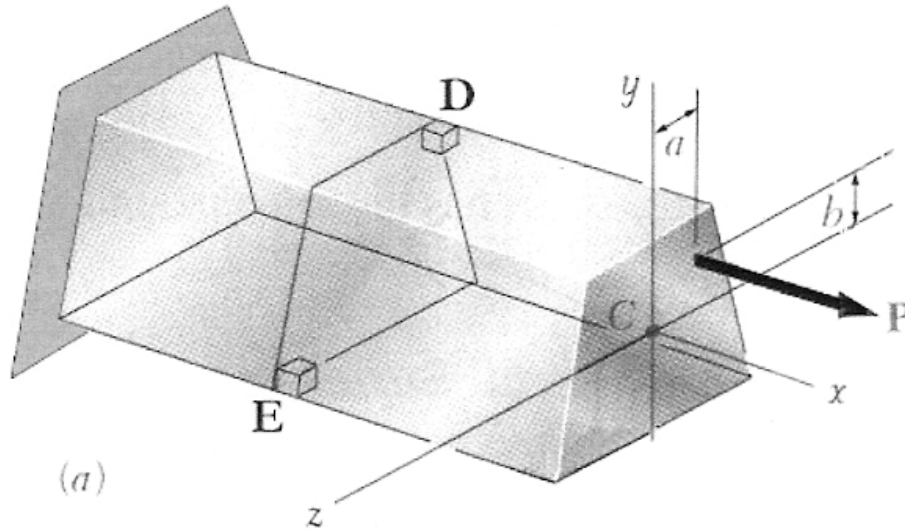


Quiz # 5

ESM2204 Spring 2011

Instructor: R.D. Kriz

The straight member AB with centroid at C is subjected to equal and opposite eccentric axial force P . The eccentric force P in the upper figure (a) is equivalent to the system consisting of a centric force P and the moments M_z and M_y in the lower figure (b) where $|M_z| = Pb$ and $|M_y| = Pa$. Which statement is true about σ_x at D or E ?



- 1) σ_x at D is equal to $+P/A + M_z y / I_y + M_y z / I_y$ ✗
- 2) σ_x at E is equal to $+P/A - M_z y / I_z - M_y z / I_z$ ✗
- 3) σ_x at D is equal to $+P/A + M_z y / I_z + M_y z / I_y$ ✗
- 4) σ_x at E is equal to $+P/A - M_z y / I_z - M_y z / I_y$