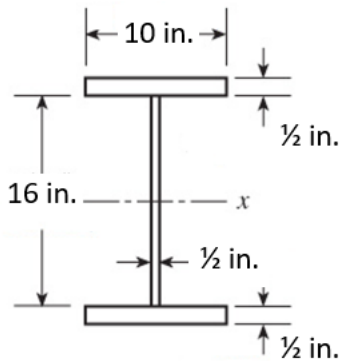


Classroom Problem 5.2-1: For the built-up shape below, determine: (a) the elastic section modulus S , and the yield moment M_y , and (b) the plastic section modulus Z and the plastic moment M_p . Bending is about the x -axis, and the steel is **A572 Grade 50** with $F_y = 50 \text{ ksi}$; $F_u = 65 \text{ ksi}$.



Classroom Problem 5.2-2: For this unsymmetric flexural member, determine a) the distance y from the top of the shape to the horizontal *plastic* neutral axis, and b) for $F_y = 50 \text{ ksi}$, compute M_p .

