TAM 211 Written Assignment 11 (due on April 14\textsuperscript{th})

1. A channel and a plate are welded together, as shown below, to form a section that is symmetrical with respect to the y axis. Determine the moments of inertia of the combined section with respect to its centroidal x and y axes.

   Hint: look online for properties of channel C8×11.5

2. Determine the moment of inertia of the wheel below about the $x'$ axis passing through the point $O$. The wheel’s material has specific weight of $\gamma = 90$ lbf/ft$^3$. Dimensions of the cross sectional area for the outer circle are 1 ft $\times$ 0.5 ft.