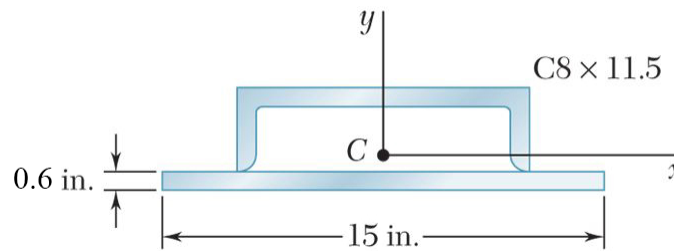


Name: \_\_\_\_\_

## TAM 211 Written Assignment 11 (due on April 14<sup>th</sup>)

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  $\gamma = 90 \text{ lbf/ft}^3$ . Dimensions of the cross sectional area for the outer circle are 1 ft  $\times$  0.5 ft.

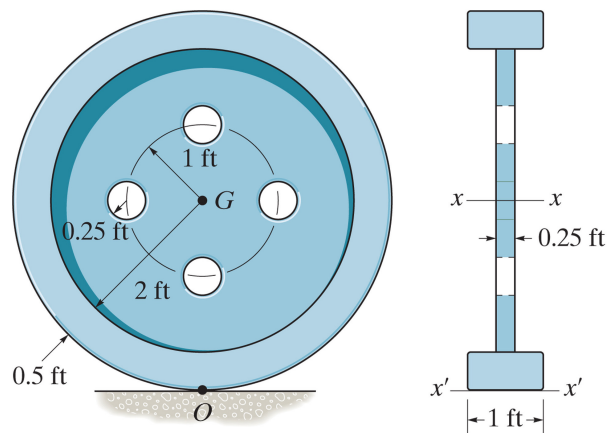


Figure: 10\_P108-109  
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