

B/9

x_0 Table D/3: $I_{xx} = \rho t \left(\frac{bh^3}{12} \right) = \frac{1}{6} m h^2$

$m = \frac{1}{2} \rho h b t$

$h = b \frac{\sqrt{3}}{2}$

G

y_0

$h/3$

y

So $I_{yy} = \frac{1}{6} m \left(b \frac{\sqrt{3}}{2} \right)^2$
 $= \frac{1}{8} m b^2$

$I_{y_0 y_0} = I_{yy} - m \left(\frac{h}{3} \right)^2$
 $= \frac{1}{8} m b^2 - m \frac{b^2}{12}$
 $= \frac{1}{24} m b^2$

Again from Table D/3:

$$I_{x_0 x_0} = 2 \left(\frac{1}{6} \frac{m}{2} \left(\frac{b}{2} \right)^2 \right) = \frac{1}{24} m b^2$$

$$I_{zz} = I_{x_0 x_0} + I_{y_0 y_0} = \frac{1}{12} m b^2$$