

$$I_{zz} = \int_{-\frac{ax_2}{2h}}^{\frac{ax_2}{2h}} \int_0^h dx_1 dx_2 (x_1^2)$$

$$= \int_0^h \left[\frac{x_1^3}{3} \right]_{-\frac{ax_2}{2h}}^{\frac{ax_2}{2h}} dx_2$$

$$= \int_0^h \frac{1}{3} \left(\frac{ax_2}{2h} \right)^3 dx_2$$

$$= \int_0^h \left[\frac{-a^3}{3h^3} \frac{x_2^4}{4} \right]_0^h$$

$$= \sigma \frac{a^3}{3h^3} \frac{h^4}{4} = \frac{a^3}{12} h \sigma = \frac{a^3}{12} \frac{\sqrt{3}a}{2} \frac{4M}{a^2 \sqrt{3}}$$

$$= \frac{a^4 M}{24}$$