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Find allowable for F.S. = 3:

\[
\text{AREA} = (4 \times 12) - (3 \times 11) = 15
\]
\[
I_x = \frac{4(12)^3}{12} - \frac{3(11)^3}{12} = 243.25
\]
\[
I_y = \frac{12(4)^3}{12} - \frac{11(3)^3}{12} = 39.25
\]
K \cdot \frac{\mu_y}{r_y} = \sqrt{\frac{243.25}{15}} = 4.027
\]
\[
r_y = \sqrt{\frac{39.25}{15}} = 1.618
\]
\[
K \cdot \frac{\mu_x}{r_x} = \frac{1(24 \times 12)}{4.027} = 71.52 \text{ controls}
\]
\[
K \cdot \frac{\mu_y}{r_y} = \frac{1(8 \times 12)}{1.618} = 59.33
\]

X-X axis controls:

\[
P_{cr, x} = \frac{\pi^2 EA}{(K/L)^2} = \frac{\pi^2 (29000)(15)}{71.52^2} = 839.4 \text{ k}
\]
\[
P_y = \mu_y A = 36(15) = 540 < 839.4 \text{ k}; \text{ yielding controls}
\]
\[
P_{allow.} = \frac{540}{3} = 180 \text{ k}
\]