

77. Using Eq. 9-5, we have

$$\begin{aligned}x_{\text{com}} &= 0 = \frac{1}{M} ((4.0 \text{ kg})(0 \text{ m}) + (3.0 \text{ kg})(3.0 \text{ m}) + (2.0 \text{ kg})x) \\y_{\text{com}} &= 0 = \frac{1}{M} ((4.0 \text{ kg})(2.0 \text{ m}) + (3.0 \text{ kg})(1.0 \text{ m}) + (2.0 \text{ kg})y)\end{aligned}$$

where $M = 9.0 \text{ kg}$.

(a) Evaluating the above, we find $x = -4.5 \text{ m}$.

(b) And we find $y = -5.5 \text{ m}$.