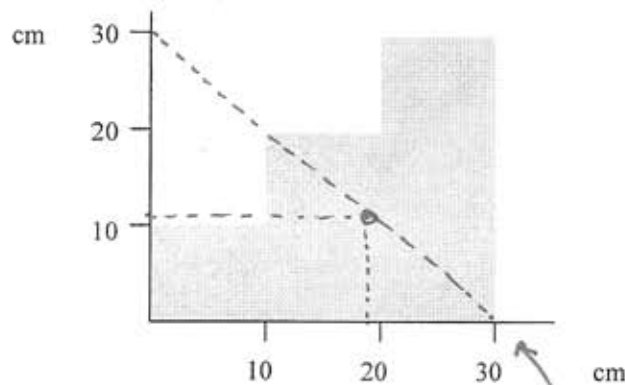


3. A uniform piece of sheet steel is shaped as shown below. Compute the x and y components of the center-of-mass.



axis of symmetry

$$y = 30 - x$$

center of mass should be on this line

$$\bar{Y}_{CM} = \frac{3(5) + 2(15) + 1(25)}{3+2+1}$$

$$= \frac{70}{6} = \underline{\underline{11.67 \text{ cm}}}$$

~~$\bar{x}_{CM} = 3$~~ $\bar{x}_{CM} = 30 - \bar{Y}_{CM}$

$$= 30 - 11.67$$

$$\bar{x}_{CM} = \underline{\underline{18.33 \text{ cm}}}$$