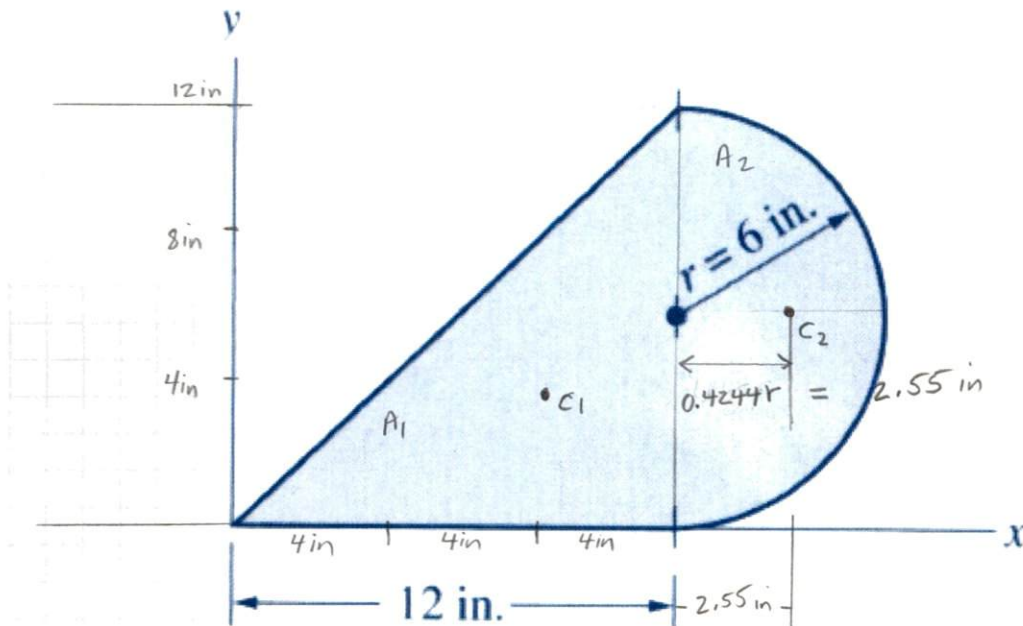


7-14

Solution.



Shape	Area (in ²)	X (in)	AX (in ³)	y (in)	Ay (in ³)
A ₁	$\frac{1}{2}(12)(12) = 72$	8	576	4	288
A ₂	$\frac{1}{2}\pi(6)^2 = 56.55$	14.55	822.8	6	339.3
Σ	128.55		1398.8		627.3

$$\bar{x} = \frac{\Sigma AX}{\Sigma A} = \frac{1398.8 \text{ in}^3}{128.55 \text{ in}^2} = \underline{\underline{10.88 \text{ in}}}$$

$$\bar{y} = \frac{\Sigma Ay}{\Sigma A} = \frac{627.3 \text{ in}^3}{128.55 \text{ in}^2} = \underline{\underline{4.88 \text{ in}}}$$

$$\boxed{C (10.88 \text{ in}, 4.88 \text{ in})}$$