



$$x_{CM, \text{tree}} = 9 \text{ cm by symmetry}$$

$$y_{CM, \text{tree}} = \frac{1(1) + 9(3) + 7(5) + (5)(7) + 3(9) + 1(11)}{1 + 9 + 7 + 5 + 3 + 1}$$

$$y_{CM, \text{tree}} = \frac{136}{26} \approx 5.23 \text{ cm}$$

$$y_{CM, \text{rod}} = 27 \text{ cm by symmetry}$$

$$y_{CM, \text{rod}} = 12 - 5.23 = 6.77 \text{ cm}$$

↑
is as far from top (12)
as $y_{CM, \text{tree}}$ is from bottom.

$$\text{Combined } x_{CM, \text{combined}} = \frac{9 + 27}{2} = \underline{\underline{18 \text{ cm}}}$$

$$\text{Combined } y_{CM, \text{combined}} = \frac{5.23 + 6.77}{2} = \underline{\underline{6 \text{ cm}}}$$