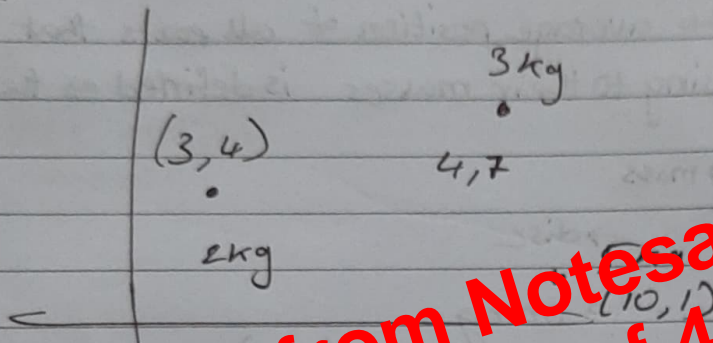


$$y_{cm} = \frac{m_1 y_1 + m_2 y_2 + m_3 y_3}{m_1 + m_2 + m_3}$$

$$z_{cm} = \frac{m_1 z_1 + m_2 z_2 + m_3 z_3}{m_1 + m_2 + m_3}$$

Example



$$x_{cm} = \frac{2 \times 3 + 3 \times 4 + 5 \times 10}{2 + 3 + 5}$$

$$= \frac{68}{10}$$

$$y_{cm} = \frac{2 \times 4 + 3 \times 7 + 5 \times 1}{2 + 3 + 5} = \frac{9 + 21 + 5}{10} = \frac{34}{10}$$

$$COM = \left(\frac{68}{10}, \frac{34}{10} \right) \quad (z_{cm} = 0)$$

$$= \left(\frac{68}{10}, \frac{34}{10}, 0 \right)$$

Preview from Notesale.co.uk
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