

T_EX document #4

$$\begin{aligned}\overline{x} = x_{\text{cm}} &= \frac{\iiint_E \rho(x, y, z) x \, dV}{M}, \\ \overline{y} &= \frac{\iiint_E \rho(x, y, z) y \, dV}{M}, \quad \overline{z} = \frac{\iiint_E \rho(x, y, z) z \, dV}{M}.\end{aligned}$$

$$\overline{x} = \frac{\iiint_E x \, dV}{\iiint_E dV} = \frac{\iiint_E x \, dV}{\text{Volume of } E}, \quad \text{etc.}$$