Section 7.6. Definition of the Center of Mass

Note. Let dm be a differential element of a three dimensional object M. The center of mass is:

$$\overline{x} = \frac{\int_M x\, dm}{\int_M dm}, \quad \overline{y} = \frac{\int_M y\, dm}{\int_M dm}, \quad \text{and } \overline{z} = \frac{\int_M z\, dm}{\int_M dm}.$$

Again, in computing these, the x, y, z's in the integrals are the centers of mass of the little "dm slices."

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