



Q.1/ Show that Kinetic Energy for a System of N-particles is given by:

$$T = \frac{1}{2}mv_{cm}^2 + \sum_{i=1}^N \frac{1}{2}m_i v_i'^2$$

Where v_{cm} is the velocity of the center of mass and v_i' is the velocity of the individual particles relative to the center of mass. *[10 Marks]*

Good Luck

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