


Vocabulary: Particle, System of Particles, Rigid body

Word	Particle Q	System of particles S	Rigid body B	Relation to force/torque
Mass	 m_Q or m^Q	$m^S =$	$m^B =$	$\mathbf{F}^Q = m^Q \mathbf{a}^Q$ $\mathbf{F}^S = m^S \mathbf{a}^{S_{cm}}$ $\mathbf{F}^B = m^B \mathbf{a}^{B_{cm}}$
Translational Momentum	${}^N\mathbf{L}^Q =$	${}^N\mathbf{L}^S =$	${}^N\mathbf{L}^B =$	
Angular Momentum (moment of momentum)	${}^N\mathbf{H}^{Q/O} =$	${}^N\mathbf{H}^{S/O} =$	${}^N\mathbf{H}^{B/B_{cm}} =$ ${}^N\mathbf{H}^{B/O} =$	
Kinetic Energy	${}^N\mathbf{K}^Q =$	${}^N\mathbf{K}^S =$	${}^N\mathbf{K}^B =$ ${}^N\mathbf{K}^B =$	