Chapter 12

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- A rigid body at rest is said to be in static equilibrium. For such a body, the vector sum of the external forces acting on it is zero, that is, $\vec{F}_{net} = 0$. If all forces lie in xy plane, this vector quantity can be broken into two components $F_{net,x} = 0$ and $F_{net,y} = 0$.

- Static equilibrium also implies that the vector sum of the external torques acting on the body about any point is zero, or $\vec{\tau}_{net} = 0$