

### Answer on Question #47051 - Physics - Mechanics | Kinematics | Dynamics

Does line of action of the weight of the body ends at the centre of gravity?

**Solution:**

Yes, line of action of the weight of the body ends at the centre of gravity, because of the universal Gravitation Equation:

$$F_{\text{grav}} = G \frac{m_1 m_2}{d^2}$$

where  $F_{\text{grav}}$  represents the force of gravity between two objects,  $m_1, m_2$  –masses of objects,  $d$  –distance separating the **object's centers**