CENTER OF MASS

Center of mass (or center of gravity) = average location of the total mass of the body.
The weight force is applied at the center of mass, so center of mass = “center of gravity”.

**Location of the c.m.**

**Balance method:**

![Balance method diagram]

**Suspension method:**

![Suspension method diagram]
Location of c.m. of a person

Mathematical model method (or segmentation method): Next lab

Some important points

- The c.m. is not fixed to any given part of the body.
- The c.m. does not have to be within the material of the body.
In airborne motions:

If one part of the body goes down, another must go up as a compensation.