Source: [[KBPHYS360MasterIndex]]

The center of gravity is the same thing as the center of mass, except when the gravitational field you are in is not uniform.

1 | Where's the center?

For triangles:

- Perpendicular bisectors: circumcenter, equal distance
- Angle bisectors: inter-center (inscribe a circle)
- Medians: split the medians

2 | Newton's Laws

1. ***Law of Inertia***: An object at rest stays a rest, unless acted upon by a force; object in motion stays in constant motion unless acted
2. $\vec{F_{net}} = m\vec{a}$
3. For a set of objects A,B, Force of A->B is equal to negative of Force of B->A

$\vec{F_{net_{system}}} = Ma_{cm}$. The force of the system is the mass times the acceleration by the center of mass.