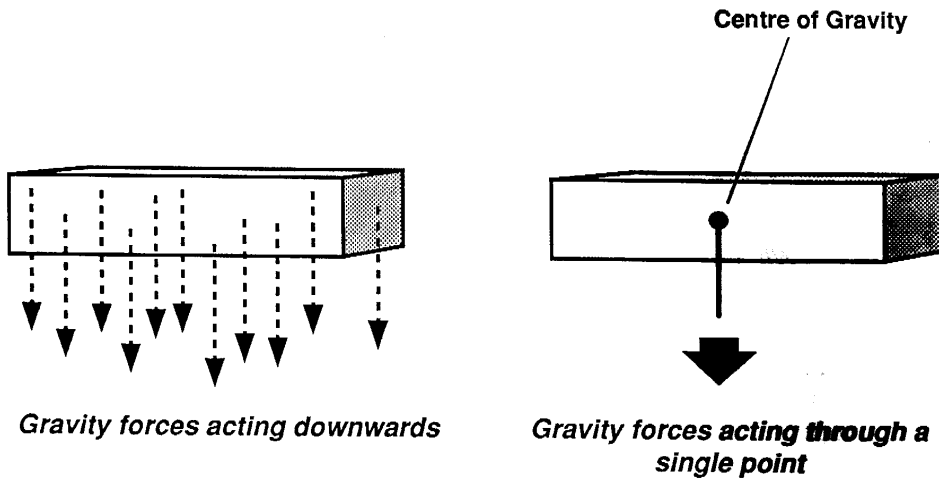
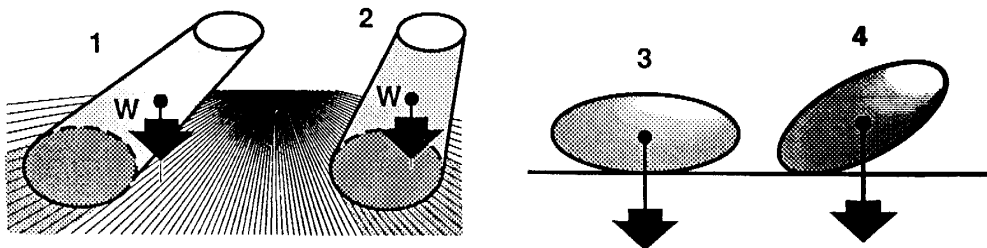


CENTRE OF GRAVITY

The weight of a body can be regarded as acting through one point. This point is known as the Centre of Gravity.

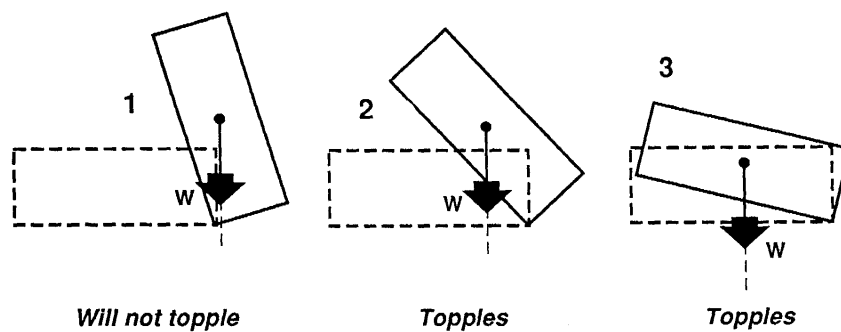


When the forces acting on a body are balanced, we say that the body is in **equilibrium**, that is, it stays at rest (or continues moving with no change in direction or speed).
 If the Centre of Gravity of an object at rest is **directly over its base area**, then it is in equilibrium and it will **not topple** over. However, if the Centre of Gravity acts **outside the base area**, the forces are not balanced and the object will **topple**.



Which of the above objects will topple?

For most bodies there is an angle beyond which you cannot tilt it before it topples over. (This angle will be different for every body).



This may be of use when righting a car on its side – the car is tipped until its Centre of Gravity lies outside the base area, when the car will topple and right itself.