Real Life Applications of Uniform Acceleration

- It is more than likely that the first time Accelerated Linear Motion would have been studied, was in ancient attempts to describe the motion of massive objects in our solar system, like the planets.
- Uniform acceleration arises in any situation where non-aerodynamic objects. Some concrete examples are explained below.

1) When NBA players make a slam dunk or sink a 3 point shot, their motion can be described using uniform acceleration equations. An understanding of these equations is required so cameras can detect distances, jump heights and any other relevant measurements that might be made.

2) Cliff divers are moving at uniform acceleration when they dive from large heights. Jump distances and the speed they enter the water at can be easily calculated, using the equations of motion.

3) When the module carrying astronauts back to Earth from space missions is falling under gravity into the atmosphere, it is moving at uniform acceleration. Calculations are required to make sure the trajectory and entry angle are correct, and in the design of the module itself.

4) Lifts/elevators in multi-storey buildings are moving up and down under uniform acceleration. This is useful to know when designing the lifts and in their smooth operation between different floors of a building. The highest outdoor elevator in the world is shown on the right, in China. It is at a height of 330m.