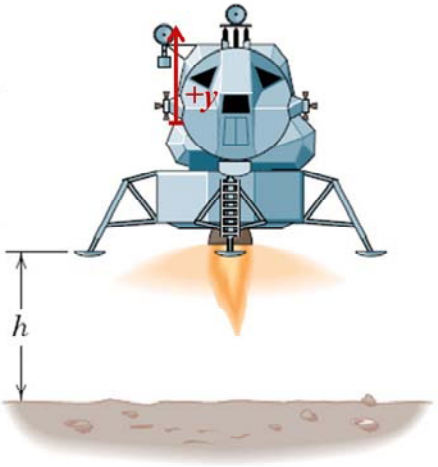
Integrating Acceleration: Exercise

Case #1: constant *acceleration*

A lunar module is ***positioned*** 5 m above the surface and has a downward ***velocity*** of 2 m/s when its engine stops.

Compute the impact ***velocity*** (v) of the module with the moon (hint: gravity is 1/6 earth's gravity).



2/18 $v^2 = v_0^2 + 2as$, where $a = g/6$

$v^2 = 2^2 + 2\left(\frac{9.81}{6}\right)5$, $v = 4.51$ m/s