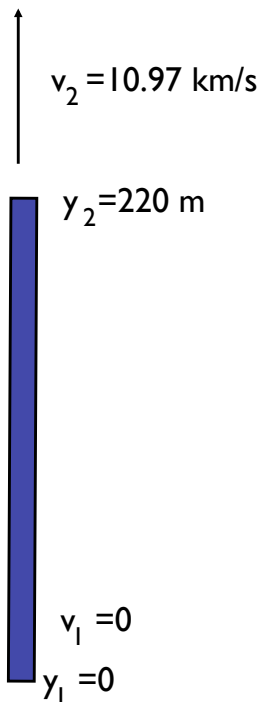


## Problem 2.28

Jules Verne proposed a moon shot using a 220 meter long cannon that could catapult a spaceship vertically upward with muzzle velocity of 10.97 km/s. What would the astronaut's acceleration be during launch?

1.)



Noting that you have to get all of the units into the same system (you'll be using MKS in this class, so the kilometers per seconds will have to be changed to meters/second), the relationship to use is:

$$v_2^2 = v_1^2 + 2 a \Delta y$$

2.)