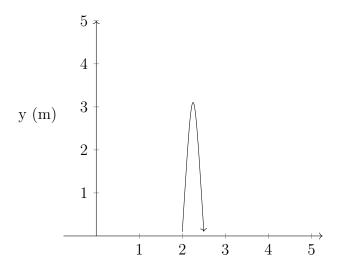
## 0.1 Formulas

Up/Down motion:

$$y_f = y_0 + v_0(\Delta t) + \frac{1}{2}a(\Delta t^2)$$
 (1)



Motion on an Incline:

$$\sin \theta = \frac{a_s}{g} \quad \cos \theta = \frac{a_n}{g} \tag{2}$$

## 0.1.1 Key

v = velocity, meters/second

y =height, meters

t = time, seconds

 $a = acceleration, meters/second^2$ 

 $g = \text{standard earth acceleration:} 9.8 \text{m/s}^2$