

PROJECTILE MOTION with linear drag

- How wrong was Aristotle?!

$$\ddot{x} = -kx$$

$$\ddot{y} = -g - ky$$

$$y = \left(\frac{v}{u} + \frac{g}{ku} \right) x + \frac{g}{k^2} \lambda_n \left(1 - \frac{kx}{u} \right);$$

$$g = 1$$

$$u = \dot{x}(0) = 1$$

$$v = \dot{y}(0) = 3$$

