

# Projectile Motion ACT

One marble is given an initial horizontal velocity, the other simply dropped. Which marble hits the ground first?

A) dropped

B) pushed

C) They both hit the ground at the same time

When ball hits depends on  $y$  only!

$$y(t) = y_0 + v_{y0} t + \frac{1}{2} a_y t^2$$

Same for both balls!

