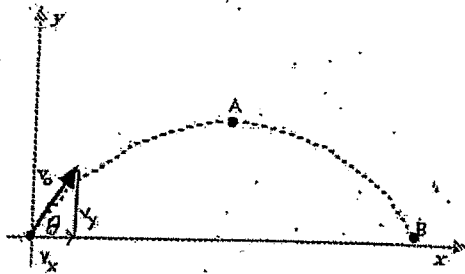


$$g = -10 \text{ m/s}^2$$

# Angled Projectile Notes

1. You are given the initial velocity  $v_o$  and the angle  $\theta$  of a projectile launched from the ground and returning to the ground.
  - a) Find the components of the velocity,  $v_x$  and  $v_y$ .
  - b) What is the total air time for the projectile (time up + time down)?
  - c) Determine the forward distance the projectile travels while in flight.
2. You are given the components of the initial velocity,  $v_{xo}$  and  $v_{yo}$  of a projectile launched from the ground and returning to the ground.
  - a) Find the initial velocity  $v_o$  and the angle  $\theta$ .
  - b) What is the total air time for the projectile (time up + time down)?
  - c) Determine the forward distance the projectile travels while in flight.



1.  $v_o = 80 \text{ m/s}$

$\theta = 30^\circ$

$v_{xo} =$

$v_{yo} =$

air time =

forward distance =

velocity at point A =

2.  $v_{xo} = 30 \text{ m/s}$

$v_{yo} = 50 \text{ m/s}$

$v_o =$

$\theta =$

air time =

forward distance =

velocity at point A =