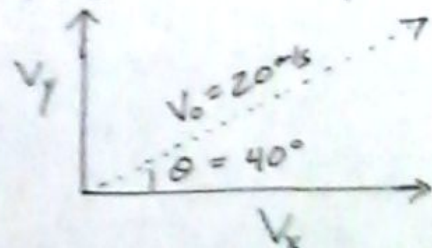


## Soccer WS 2

Bill kicks a soccer ball at  $20 \text{ m/s}$  and an angle of  $40^\circ$ .

Find the  $V_x$  and  $V_y$  components.  $V_x:$   $V_y:$



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

- 1.) How much time does the ball spend in the air?
- 2.) What is the horizontal distance traveled?
- 3.) What is the max height reached?
- 4.) What is the total velocity at the ball's peak?
- 5.) If the goal is 10 meters east and 2 meters in height, will Bill make the goal? Why or why not?