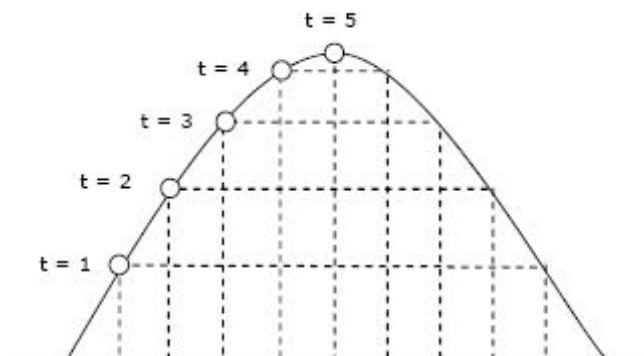


Name _____ # _____

Section _____

Projectile Motion Worksheet



$V_{iy} = +50 \text{ m/s}$ $V_{ix} = 16 \text{ m/s}$

1. Show the position of the ball on the drawing above at times 6, 7, 8, 9 and 10 seconds.

2. Use the picture above to fill out the chart below.

t (sec)	V_x (m/s)	V_y (m/s)
0	16	50
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

3. A person kicks a soccer ball at an angle and sends it in the air.

a) What angle of projection between 0 and 90 degrees produces the greatest initial vertical component? _____

greatest initial horizontal component? _____

b) A soccer ball is kicked at a speed of 8 m/s. Circle the angle below that will give the ball the largest (dy)?

Which angle will make the ball go the farthest (dx)?

13 degrees 7 degrees 40 degrees 85 degrees 2 degrees.?

4. What angle can you kick a football that will make the initial vertical component of the velocity equal to the initial horizontal

component of the velocity? _____

5. Name an angle that you could kick a football that would give it a very large initial vertical component but a small nonzero initial

horizontal component. _____

6. How would the vertical component of a velocity change if the angle of projection was changed from 80 degrees to 60

degrees? _____

7. A soccer ball was kicked on a horizontal field. The initial vertical component of the soccer ball was +15 m/s and the initial horizontal component was + 8 m/s.

a) What was the vertical component of the balls velocity just before it hit the ground? _____

b) What was the horizontal component of the balls velocity just before it hit the ground? _____