

Projectile Investigator Answer Sheet

TABLE 1

Launch Speed m/s	Launch Angle degrees	Launch Height (m)	Time in the air (s)	Range (m)
5	10	0		
5	20	0		
5	30	0		
5	40	0		
5	50	0		
5	60	0		
5	70	0		
5	80	0		

(1) What do you notice about the launch angle and the time in the air?

(2) What do relationship is there between the launch angles and the range?

TABLE 2

Launch Speed (m/s)	Launch Angle	Launch height (m)	Time in the air (s)	Range (m)
	0	3.00		
	0	3.00		
	0	3.00		
	0	3.00		

(3) What effect does increasing the horizontal launch speed have on the range?

(4) What effect does increasing the horizontal launch speed have on the time the projectile is in the air?

TABLE 3

Screen Position from left to right	Time (s)	Vertical position (m)	Vertical displacement between positions	Horizontal position (m)	Horizontal displacement between positions (m)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

(5) What do you notice about each horizontal displacement and describe why you got the relationships you got for the horizontal displacements?

(6) What do you notice about each horizontal displacement and describe why you got the relationships to got for the vertical displacements?