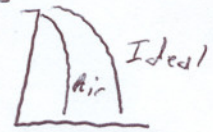


# Projectile Test Answers

- |     |      |                  |      |                 |
|-----|------|------------------|------|-----------------|
| 1-2 | 8-1  | 13-1             | 18-4 | 21-Same         |
| 2-1 | 9-2  | 14-2             | 19-3 | 22-Greater at B |
| 3-2 | 10-2 | 15-1             | 20-2 | 23-             |
| 4-b | 11-4 | 16-X (No Answer) |      |                 |
| 5-d | 12-3 | 17-4             |      |                 |
| 6-1 |      |                  |      |                 |
| 7-4 |      |                  |      |                 |



- 24-4  
25-1  
26-4

## Problems 1

a)

$v_{iy} = 0 \text{ m/s}$	$d_y = v_{iy}t + \frac{1}{2}at^2$	B- $v_x = \frac{dx}{t}$	C - Time - No effect - Forward Dist Increase 2x
$a = 10 \text{ m/s}^2$	$60 \text{ m} = 0 + \frac{1}{2}(10 \text{ m/s}^2)t^2$	$15 \text{ m/s} = \frac{dx}{3.46 \text{ sec}}$	
$d_y = 60 \text{ m}$	$t = 3.46 \text{ sec}$	$dx = 52 \text{ m}$	
$t = ?$			

2)

A- $t_{rise} = 12 \text{ sec}$	B- $v_{fy}^2 = v_{iy}^2 + 2ad_y$	C- $v_x = \frac{dx}{t}$
$t_{total} = 24 \text{ sec}$	$0 \text{ m/s}^2 = (120 \text{ m/s})^2 + 2(-10 \text{ m/s}^2)d_y$	$90 \text{ m/s} = \frac{dx}{27 \text{ sec}}$
	$0 = 14400 - 20 d_y$	$dx = 2160 \text{ m}$
	$-14400 = -20 d_y$	
	$d_y = 720 \text{ m}$	

d- Forward dist ↑  
Time ↓