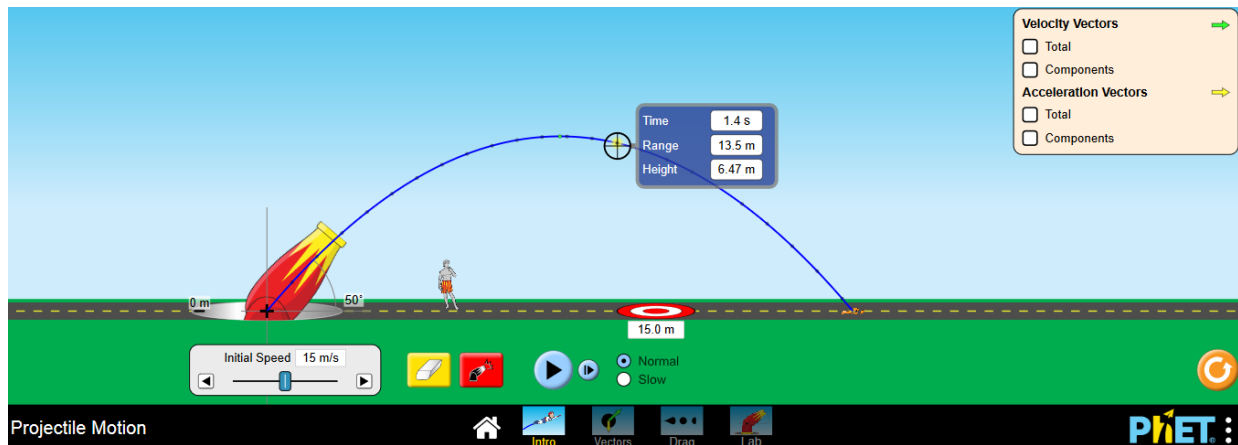


CW 1.7 PhET Projectiles Lab

For each problem calculate a) the range, b) the max height and c) the speed of impact. Then use the **PhET Projectile Simulation** to check your answer!



Horizontally Launched Projectiles

1. $h = 12 \text{ m}$, $v = 20 \text{ m/s}$, $\theta = 0^\circ$
2. $h = 8 \text{ m}$, $v = 30 \text{ m/s}$, $\theta = 0^\circ$
3. $h = 15 \text{ m}$, $v = 10 \text{ m/s}$, $\theta = 0^\circ$

	Range (m)	Max height (m)	Impact speed (m/s)
Q1			
Q2			
Q3			

Launching at an Angle

4. $h = 0 \text{ m}, v = 20 \text{ m/s}, \theta = 10^\circ$

5. $h = 0 \text{ m}, v = 20 \text{ m/s}, \theta = 45^\circ$

6. $h = 0 \text{ m}, v = 20 \text{ m/s}, \theta = 80^\circ$

	Range (m)	Max height (m)	Impact speed (m/s)
Q4			
Q5			
Q6			

Launching from a height and at an angle (advanced!)

7. $h = 5 \text{ m}, v = 20 \text{ m/s}, \theta = 30^\circ$

8. $h = 10 \text{ m}, v = 20 \text{ m/s}, \theta = 45^\circ$

9. $h = 15 \text{ m}, v = 20 \text{ m/s}, \theta = 60^\circ$

	Range (m)	Max height (m)	Impact speed (m/s)
Q7			
Q8			
Q9			