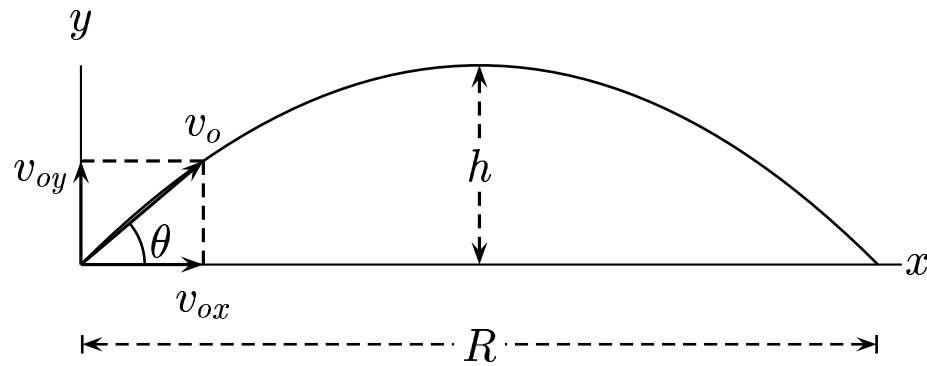


Given: $v_{0x} = 10 \text{ m/s}$, $v_{0y} = 20 \text{ m/s}$, and $g = 10 \text{ m/s}^2$.



Find R .

- A) $R = 2 \frac{v_0^2}{g} = 2 \frac{10^2 + 20^2}{10} = 100 \text{ m}$.
- B) $R = \frac{v_{0x} v_{0y}}{g} = \frac{10 \times 20}{10} = 20 \text{ m}$.
- C) $R = 2 v_{0x} \frac{v_{0y}}{g} = 2 \times 10 \times \frac{20}{10} \text{ m} = 40 \text{ m}$.
- D) $R = \frac{1}{2} v_{0x} \frac{v_{0y}}{g} = 10 \times \frac{20}{2 \times 10} \text{ m} = 10 \text{ m}$.

$$R = v_{0x} (2 t_{rise}) = 2 v_{0x} \frac{v_{0y}}{g} .$$

Answer **C** .