

Horizontal Range

Using the diagram shown, predict an expression for the horizontal range R (displacement along the horizontal direction) of a projectile:

a.) $\left(\frac{v_0 \sin \theta}{g}\right)$

b.) $\left(\frac{v_0^2 \sin^2 \theta}{2g}\right)$

c.) $\left(\frac{2v_0 \sin \theta}{g}\right)$

d.) $\left(\frac{v_0^2 \sin(2\theta)}{g}\right)$

e.) $\left(\frac{v_0^2 \sin \theta}{2g}\right)$

