

### Question

$$v_{\perp} = v_0 \cdot \sin \alpha$$

$$t = 2 \cdot \frac{v_0 \cdot \sin \alpha}{g}$$

$$s = 2 \cdot \frac{v_0 \cdot \sin \alpha}{g} \cdot v_0 \cdot \cos \alpha = 2 \cdot \frac{18.7 \cdot \sin 37^\circ}{9.8} \cdot 18.7 \cdot \cos 37^\circ = 34.3 \text{ m.}$$

Answer: 34.3 meters.