

Wiley coyote runs off of a 44.1m high cliff at 16m/s . how far away from the base of the cliff does he land

Solution:

Let:

$$H = 44.1 \text{ m}$$

$$v = 16 \text{ m/s}$$

$$S = ?$$

$S = v * t$, where t-time of freefalling from H

$$t = \sqrt{\frac{2H}{g}}$$

$$S = v \sqrt{\frac{2H}{g}}$$

$$S = 16 * \sqrt{\frac{2*44.1}{9.8}} = 48 \text{ m}$$

Answer: 48 m.