

Answer on Question #71477- Physics-Other

Dana rolls a marble with a speed of 5.0m/s across a level table that is 1.6 m above the floor. Upon reaching the edge of the table it follows a parabolic path to the floor. How far does the marble travel in the x-direction?

Solution

$$x = vt$$

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

$$x = v \sqrt{\frac{2h}{g}} = 5 \sqrt{\frac{2(1.6)}{9.8}} = 2.9 \text{ m.}$$

Answer: 2.9 m.

Answer provided by <https://www.AssignmentExpert.com>