

9.2: Introduction

An object that is launched outward from a height above the ground will follow a curved path. The curved path of a projectile is a combination of the horizontal motion it is given and the effect of gravity on the object. A projectile launched horizontally, parallel to the ground, is dropping at the same time as it is traveling horizontally, and the result is a curved path.

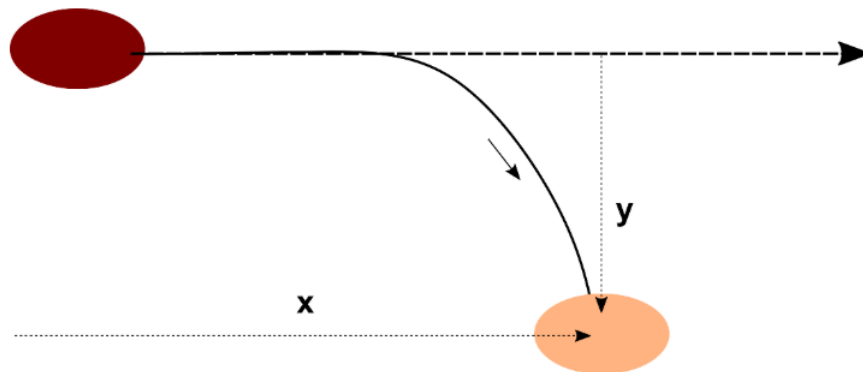


Figure 9.2.1: A projectile launched horizontally

The ball will travel a distance in the horizontal (x) plane while it is dropping in the vertical (y) plane.

Horizontal Motion:

$$x = vt$$

Vertical Motion:

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

Contributors and Attributions

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