How Far Can A Baseball Be Hit?

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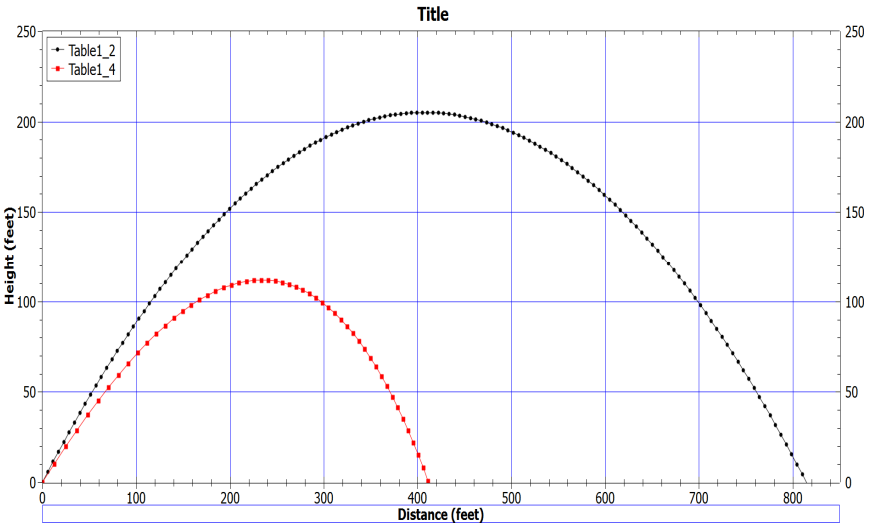
- The motion of objects is described by a branch of physics called "Kinematics".
- Using equations discovered by Isaac Newton and Galileo Galilei, we can predict where an object will go and how fast it will be moving when it gets there.

$$x_F = x_I + v_I t + \tfrac{1}{2} a t^2$$

$$v_F = v_I + at$$

- When an object (like a baseball) is fired into the air, gravity pulls it back down to the ground.
- Gravity always pulls things down, and always at a constant rate.

- However the air around us slows down the baseball.
- This is because the ball has to push the air out of the way in order to fly through it.



- Without air, a home run would fly a very long way, over 800 ft!
- However, here in New Orleans the air would slow down the ball so much that a home run could only fly about 530 ft.

Did you know?

In Denver, Colorado there is less air to slow the ball down. There a home run could travel as much as 570 ft!

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