Welcome to Free Fall Physics Version 1

This program almost definitely has some bugs to it, so if you find one, feel free to email me at <u>igeewax@standrews-de.org</u> because I am always loving email!

This program was made as a simple physics project to try to have the computer calculate and turn into graphical information the motion of a free falling object in the earth's gravity. As a growing physics lover, I found that this was much easier on the Physics side than it was on the programming side, especially for the plot of the object on ever changing scales.

You will notice that there is an option to have a "more exact" version appear. This version calculates the positions with a Do Loop and uses a simple Delta T to get the values whereas the For Next can only use Integer Values of time.

All of this is explained within the program in various "about" text boxes. I did not derive the equations that I used in this program like I did with the Length Contraction and Time Dilation Equations in the Special Relativity program. (If you haven't checked that one out yet, search in the VB category for Special Relativity and check the program out.)

I did not do this because not only is the derivation simple, but is is very visually oriented. I will probably post an updated version of the program with a supplementary PDF including the derivations of these formulas in full for the non-physicist.

Thanks for checking out this program, and if you like it, or can possibly use it in your physics class or daily life, vote for me. If you don't want to vote, leave a comment, I love having feedback on my software.

This program was made in general for the physics student. My hope is that a student will do the calculations in his/her class, and then check their numerical answers with this program to see if they are correct.

The exact version is **very** exact using smaller and smaller Delta T's but i don't know if the 3 decimal places do it justice.

The Calculation Form is very helpful to any beginner physicist who is unsure about using the quadratic formula to solve these equations. This provides an easy way to do the calculations quickly or to check your answers when solving physics problems.

Thanks for using this program, I hope to get many comments!!

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