

[06-10-01-T-Physics]
Graded Assignment
15 Points

- **This is a writing assignment. It will be graded. It counts for 15 points. A final copy meeting the same standards of neatness and polish as a paper you would submit in English class is due at the start of class on Friday, October 6. Since mathematical symbols will be used, your paper may be *neatly* handwritten rather than typed.**

Question:

Two balls are thrown with equal speeds from a certain height above the ground. One ball is thrown straight up. The other ball is thrown straight down. A student claims that each ball strikes the ground with the same speed. Decide whether or not this claim is true and give an argument for your position. Neglect air resistance.

Make your argument in mathematical language by recourse to the principles of physics we studied. Be careful to support the premises of your argument. Your argument need not be long, but it must be sound.

The purpose of this assignment is to assess the degree of clarity and precision with which you can apply the ideas discussed in class and in the text to a particular physical situation.