ME EN 2450

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Lab 09

The plots that I got for the falling ball and for the moving train both seem reasonable. For the falling ball the velocity increases initially then slows down until becoming a constant value a little over 12m/s which is a reasonable value for terminal velocity. The corresponding ball position versus time also seems reasonable as it appears as a linear line when the velocity plot appears flat, this makes sense since the velocity is the time derivative of position. For the train I saw a similar relationship between the velocity and the position with the velocity being pretty much linear (which appears as the derivative of the quadratic appearing position plot) and having reasonable values of less than 1m/s which likely makes sense with only a 1.0 N propulsion force. Overall both plots seem reasonable and changing values such as the coefficient of drag we see a changing of where the terminal velocity occurs.