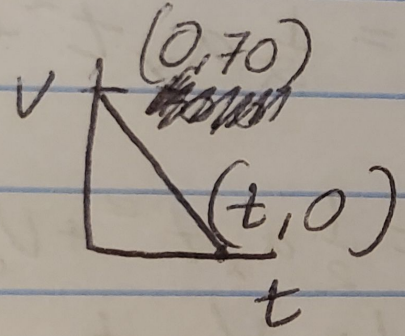
PHYS 407

8.

II.



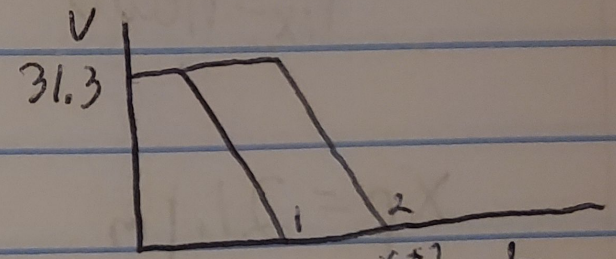
$\Delta x = \frac{V_f^2 - V_i^2}{2a}$ $V_i = 70$, $V_f = 0$

$\frac{0 - 4900}{2a}$

$\Delta x = -2450$

$\Delta x = -489.9\,m$

$31.3\,m/s$



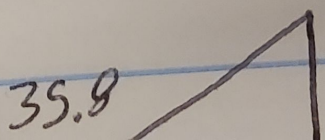
$31.3 \cdot 2$

$205.4\,ft$

13 car lengths

9

1. $V_i = 80\,mph = 35.8\,m/s$



$V_{iy} = 35.8 \sin 30 = 17.9$