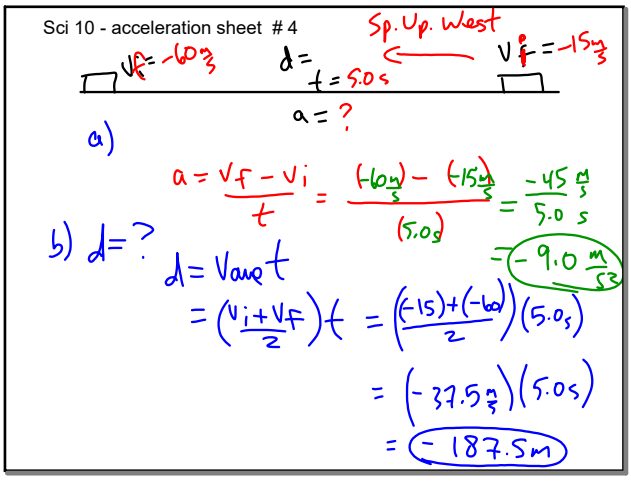
Sci 10 - acceleration sheet # 4
Sp. Up. West
$v_i = -60\frac{m}{s}$
d =
t = 5.0 s
$v_f = -15\frac{m}{s}$
a = ?
a)
$a = \frac{v_f - v_i}{t} = \frac{(-15\frac{m}{s}) - (-60\frac{m}{s})}{(5.0s)} = \frac{-45\frac{m}{s}}{5.0\ s}$
$= -9.0\frac{m}{s^2}$
b) d = ?
$d = v_{ave}t$
$= \left(\frac{v_i + v_f}{2}\right)t = \left(\frac{(-15) + (-60)}{2}\right)(5.0s)$
$= (-37.5\frac{m}{s})(5.0s)$
$= -187.5m$

Mar 14-2:35 PM