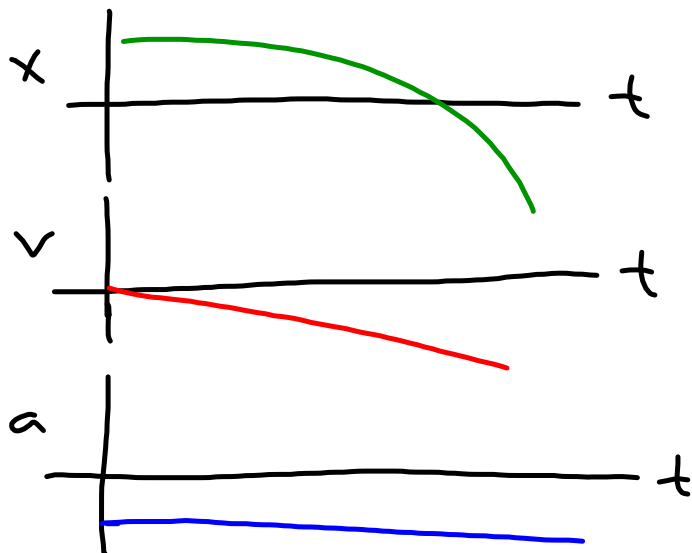
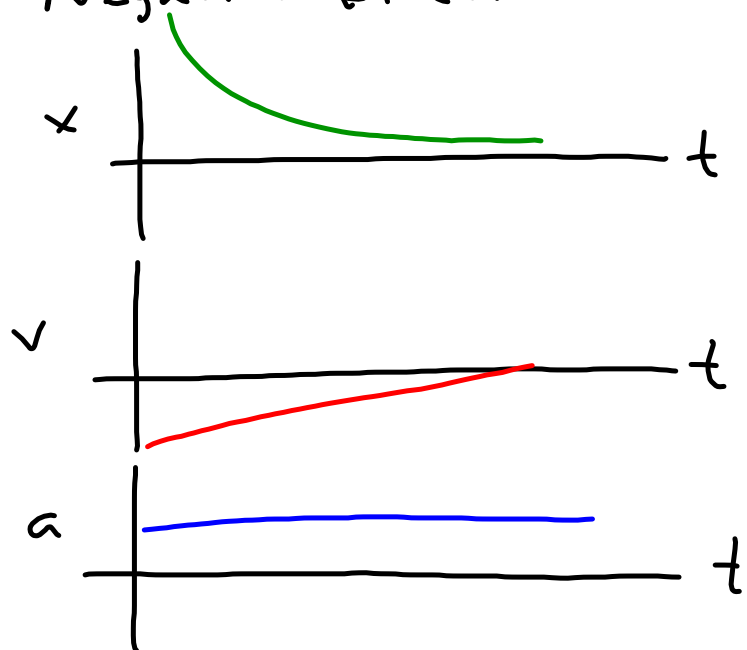


GRAPHS

- Negative Direction, Speeding Up



- Negative Direction Slowing Down



KINEMATICS PS 1

3) 

$$v_i = 0 \text{ m/s}$$

$$v_f = 67 \text{ m/s} \quad t = 6.5 \text{ s}$$

$$a = ? \quad \Delta x = ?$$

$$v_f = v_i + at$$

$$a = \frac{v_f - v_i}{t}$$

$$= \frac{67 \text{ m/s} - 0 \text{ m/s}}{6.5 \text{ s}}$$

$$= 10.3 \text{ m/s}^2$$

$$\Delta x = \cancel{v_i} t + \frac{1}{2} a t^2$$

$$= \frac{1}{2} (10.3 \text{ m/s}^2) (6.5 \text{ s})^2$$

$$= 217.6 \text{ m}$$

8) \uparrow^+
0
 \downarrow

$$v_i = -2 \text{ m/s}$$
$$t = 3 \text{ s} \quad a = ?$$
$$v_f = -28 \text{ m/s}$$

$$v_f = v_i + at$$

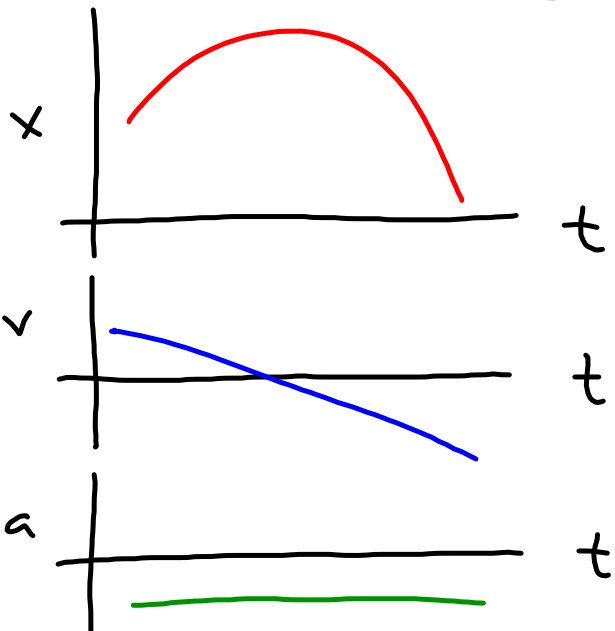
$$a = \frac{v_f - v_i}{t}$$

$$= \frac{-28 \text{ m/s} - (-2 \text{ m/s})}{3 \text{ s}}$$

$$= -8.67 \text{ m/s}^2$$

Less than -9.8 m/s^2 due to air resistance

LAB - FREE FALL



	going up	at top	going down
x	+	+	+
v	+	∅	-
a	-	-	-