

KEY

Name: _____

Honors Physics – Graphing Motion Practice 2

Date: _____

1) Position vs. Time Graphs

- (a) What quantity goes on the x-axis?
- (b) What quantity goes on the y-axis?
- (c) What does the slope represent?
- (d) What does the area under the graph represent?

TIME
 POSITION
 VELOCITY
 NOTHING

2) Velocity vs. Time Graphs

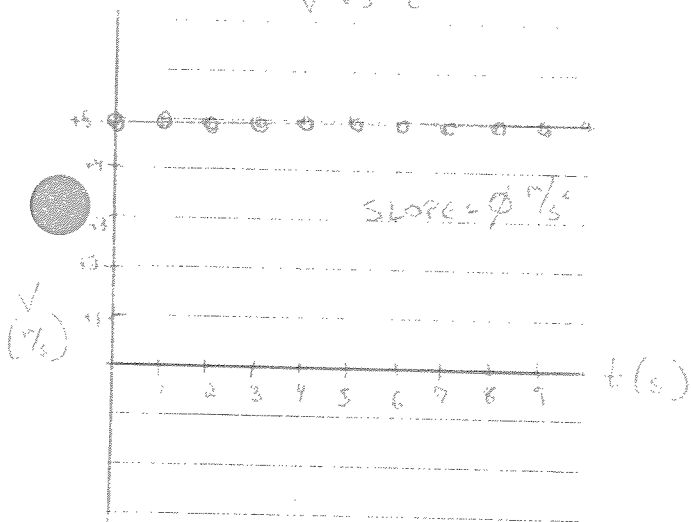
- (a) What quantity goes on the x-axis?
- (b) What quantity goes on the y-axis?
- (c) What does the slope represent?
- (d) What does the area under the graph represent?

TIME
 VELOCITY
 ACCELERATION
 DISPLACEMENT

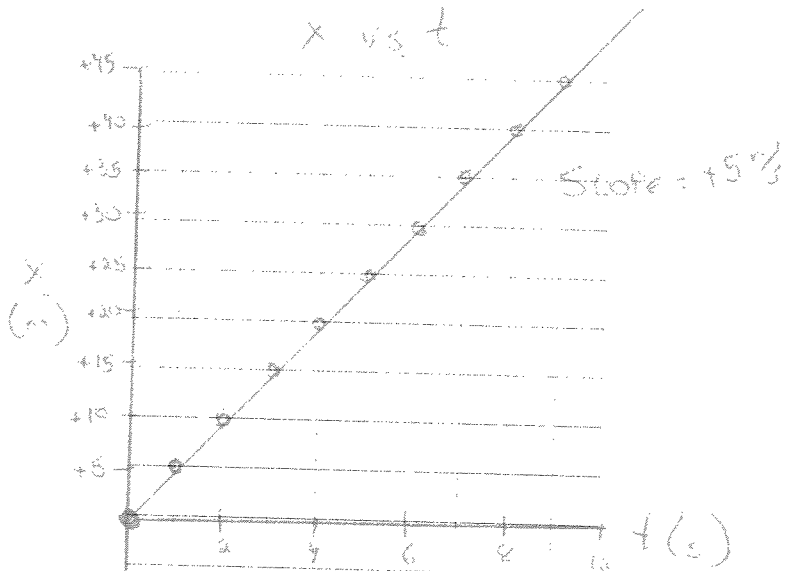
3) Draw v vs. t and x vs. t graphs for the following conditions.

(a) $x_0 = 0$ m $v_0 = +5$ m/s $a = 0$ m/s²

v vs t

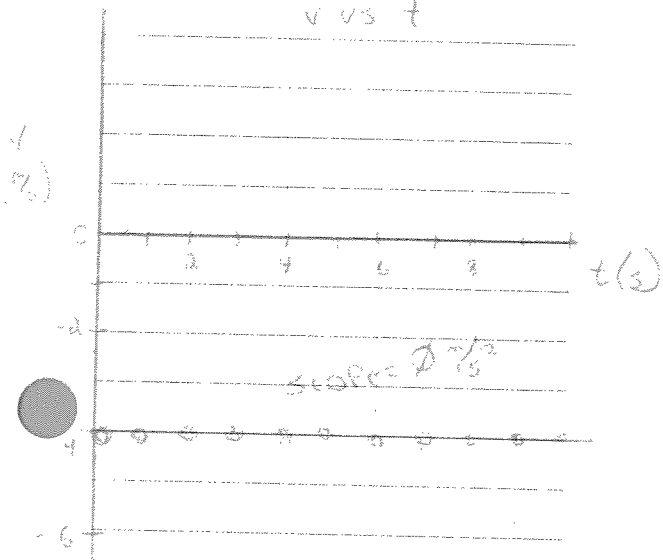


x vs t

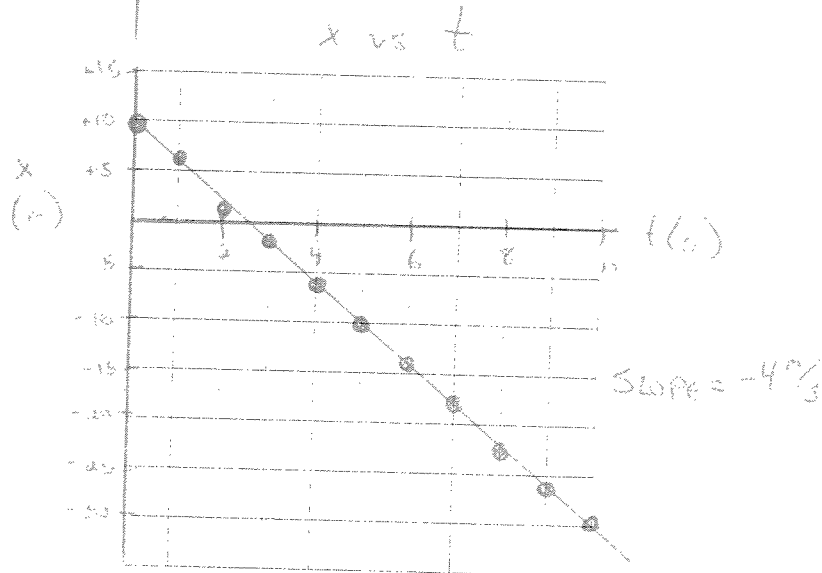


(b) $x_0 = +10$ m $v_0 = -4$ m/s $a = 0$ m/s²

v vs t

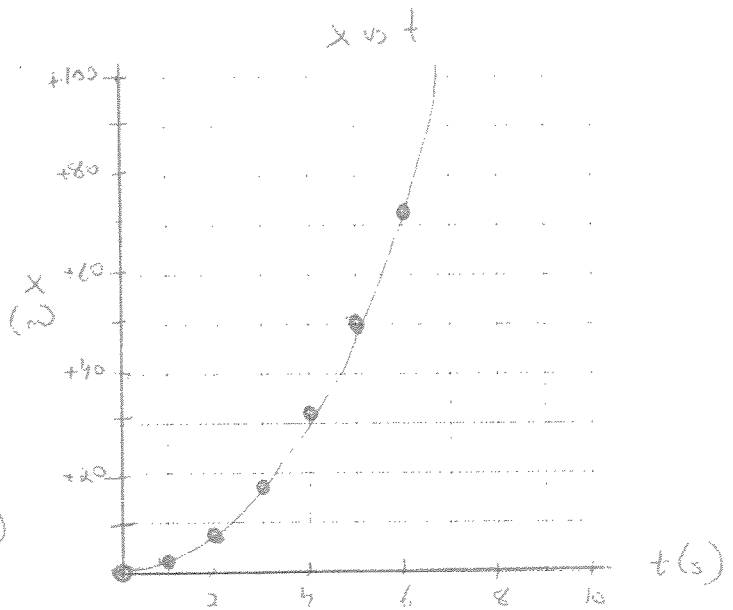
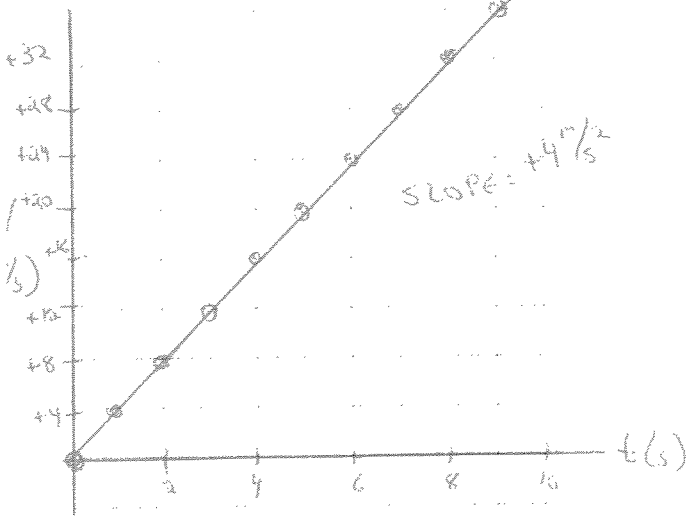


x vs t



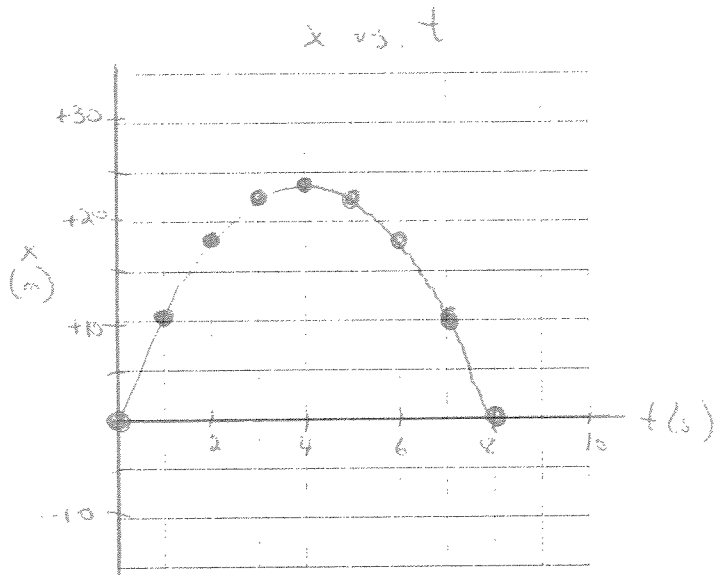
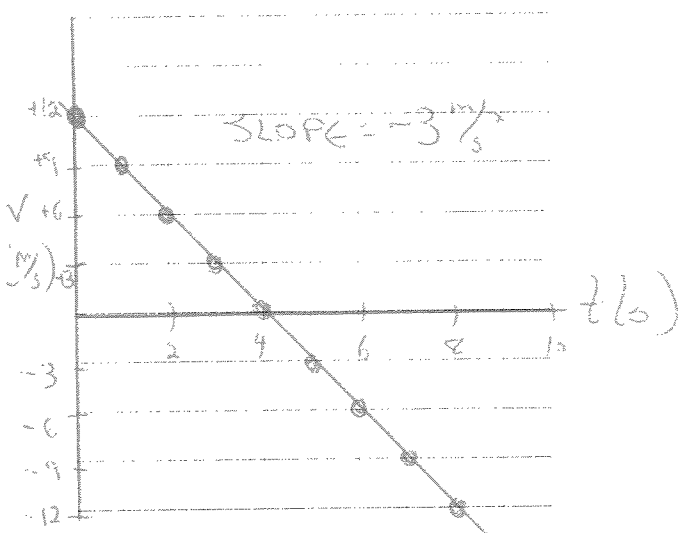
(c) $x_0 = 0 \text{ m}$ $v_0 = 0 \text{ m/s}$ $a = +4 \text{ m/s}^2$

v vs t



(d) $x_0 = 0 \text{ m}$ $v_0 = +12 \text{ m/s}$ $a = -3 \text{ m/s}^2$

v vs t



(e) $x_0 = +40 \text{ m}$ $v_0 = 0 \text{ m/s}$ $a = -5 \text{ m/s}^2$

v vs t

