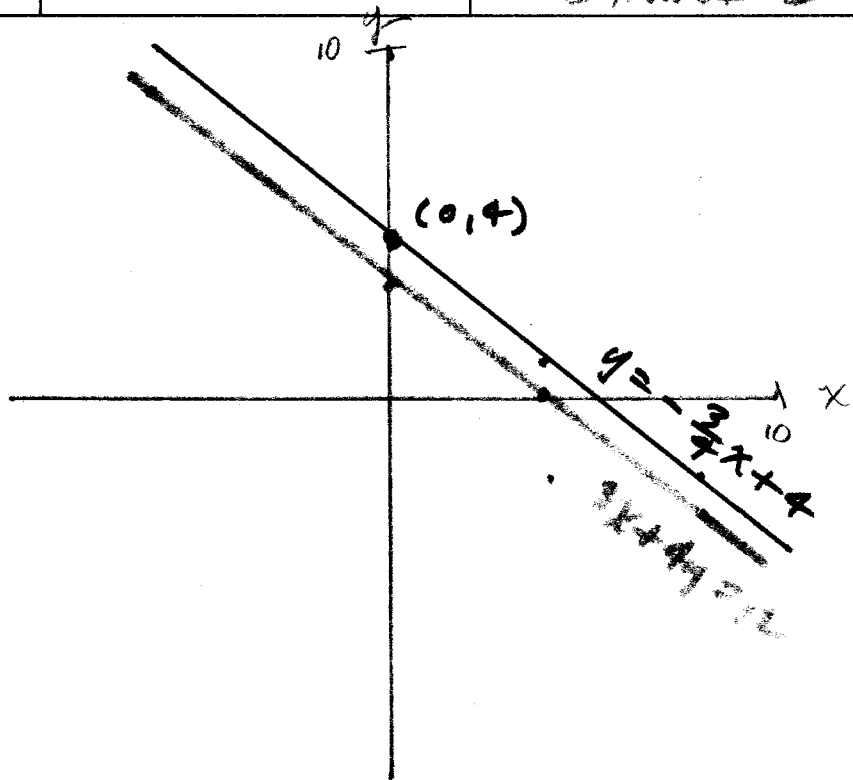


5/15
①

$$b) \quad 3x + 4y = 12$$

$$4y = -3x + 12$$

$$y = -\frac{3}{4}x + 3$$

$$c) \quad y = mx + b$$

$$y = -\frac{3}{4}x + 4$$

5pts
②

- 1) Find slope of
 $5x - 3y = -15$.

$$-3y = -5x - 15$$

$$y = \frac{5}{3}x + 5$$

- c) Slope of perpendicular
line will be $-\frac{3}{5}$.

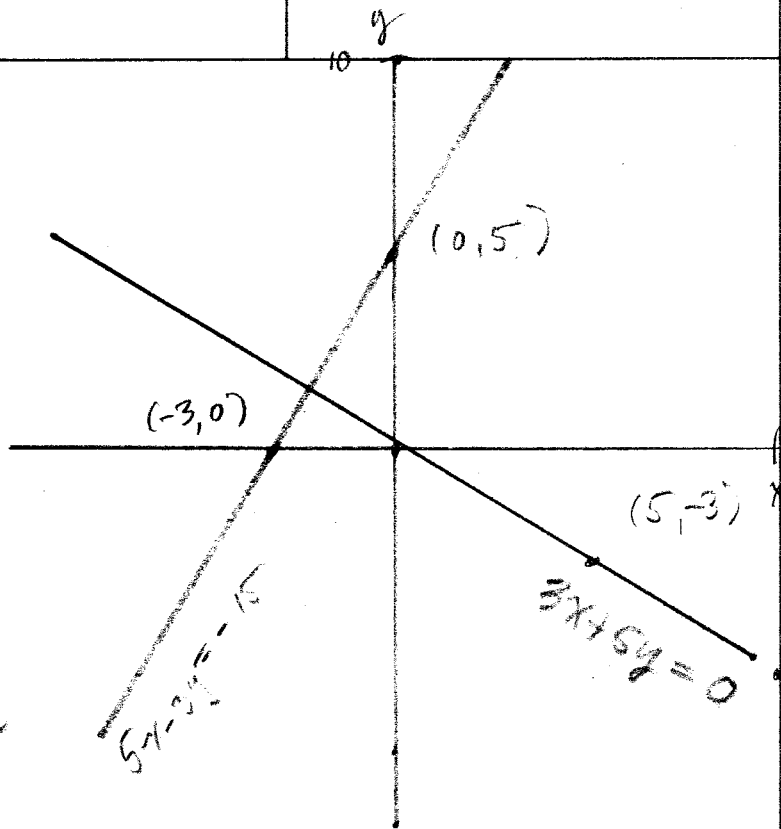
d) $y - y_0 = m(x - x_0)$

$$y - (-3) = -\frac{3}{5}(x - 5)$$

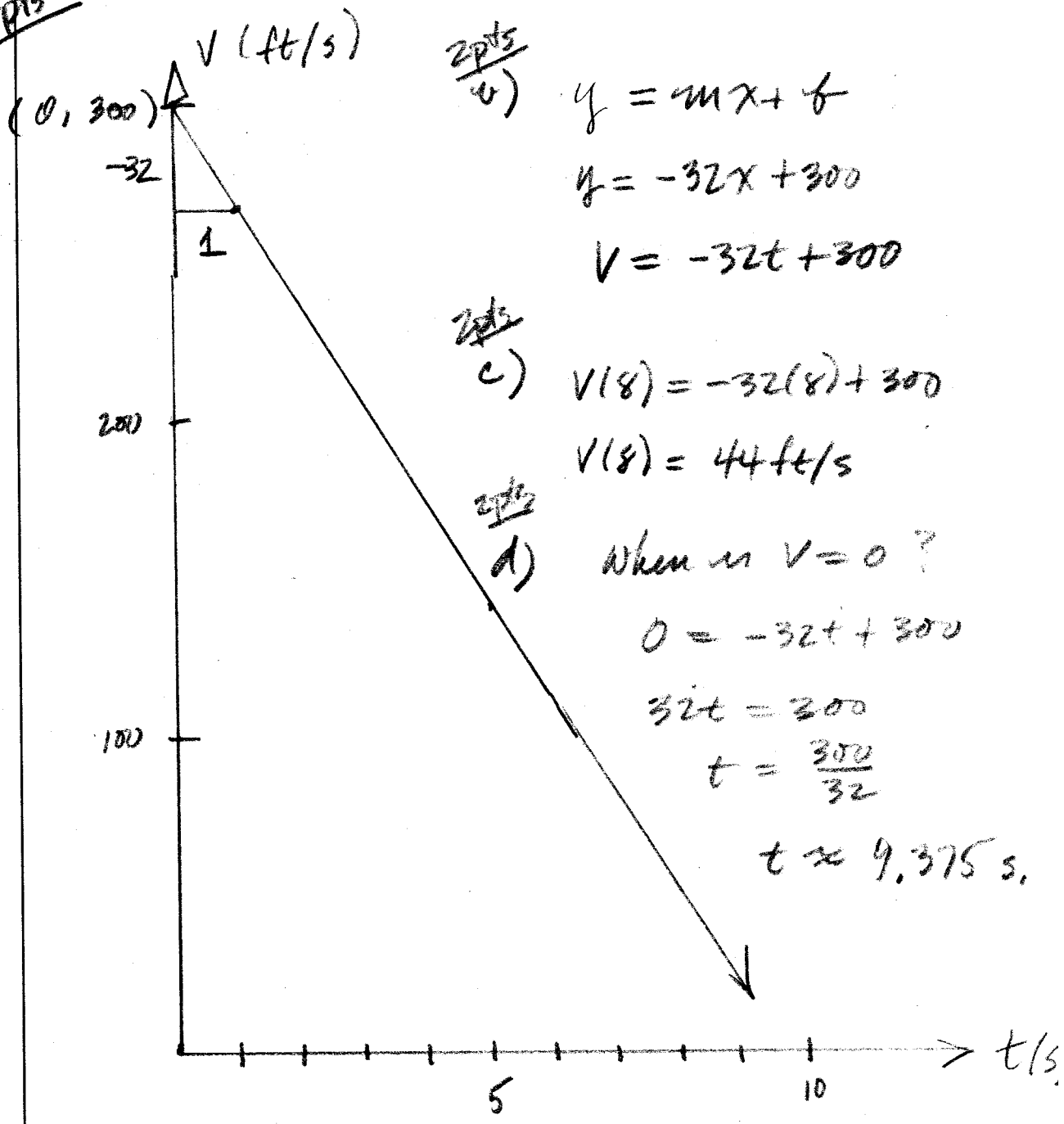
$$y + 3 = -\frac{3}{5}x + 3$$

$$5y + 15 = -3x + 15$$

$$3x + 5y = 0$$



5.)
4 pts



2 pts
a)

$$y = mx + b$$

$$y = -32x + 300$$

$$V = -32t + 300$$

2 pts

c)

$$V(8) = -32(8) + 300$$

$$V(8) = 44 \text{ ft/s}$$

2 pts

d)

When is $V = 0$?

$$0 = -32t + 300$$

$$32t = 300$$

$$t = \frac{300}{32}$$

$$t \approx 9.375 \text{ s.}$$

e) $m = \frac{50-14}{7-2.2} \approx 7.5 \text{ cm/g}$ For each additional gram of mass that is hung, the spring stretches an additional 7.5 cm.

1) $y - y_0 = m(x - x_0)$

$4 - 50 = 7.5(x - 7)$

$4 - 50 = 7.5x - 52.5$

$4 = 7.5x - 2.5$

$x = 7.5m - 2.5$

e) $y = Ax + b$

$y = 9.636x - 2.092$

If students measure after, as they shouldn't, then $y = 0.1246x + 0.3557$

