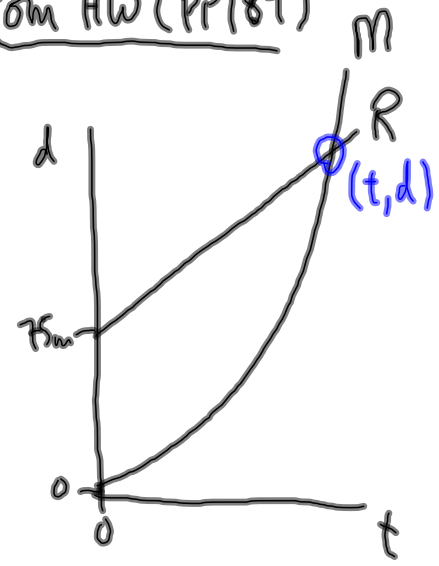
From HW (pp189)

5.



Robert => constant velocity

$V = 4.2\ m/s$

$\Delta d = d - 75m$

$\Delta t = t - 0 = t$

$$V = \frac{\Delta d}{\Delta t}$$

$$\Delta d = V\Delta t$$

$$d - 75m = (4.2m/s)t$$

$$d = (4.2m/s)t + 75m$$

Michael => constant acceleration

$V_i = 3.8\ m/s$

$a = 0.15\ m/s^2$

$\Delta d = d - 0 = d$

$\Delta t = t - 0 = t$

$$\Delta d = V_i\Delta t + \frac{1}{2}a(\Delta t)^2$$

$$d = (3.8m/s)t + \frac{1}{2}(0.15m/s^2)t^2$$

$y = mx + b$

Set equal

$$(4.2m/s)t + 75m = (3.8\tfrac{m}{s})t + (0.075m/s^2)t^2$$

In MATH 12 you will use the quadratic formula to solve.

$$\Longrightarrow 0 = 0.075t^2 - 0.4t - 75$$

For Review:

p116 | 11 - 17

p118 | 1 - 16