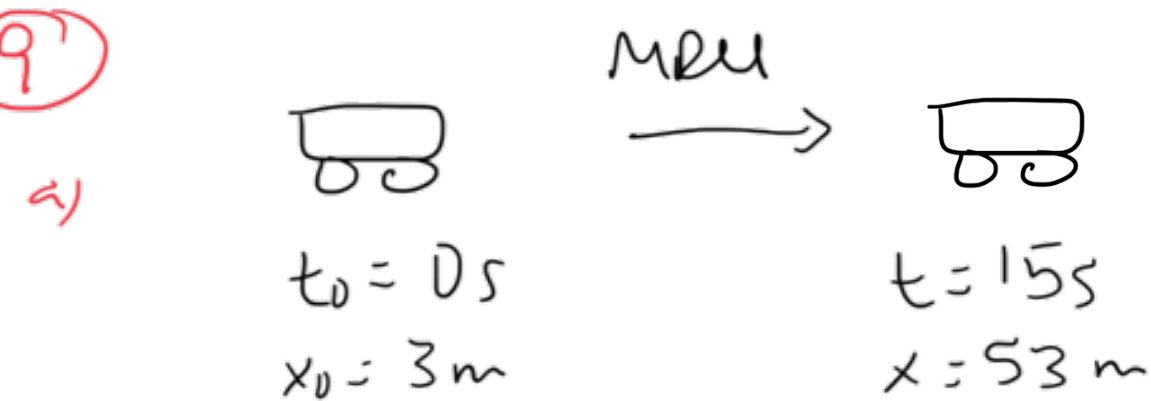
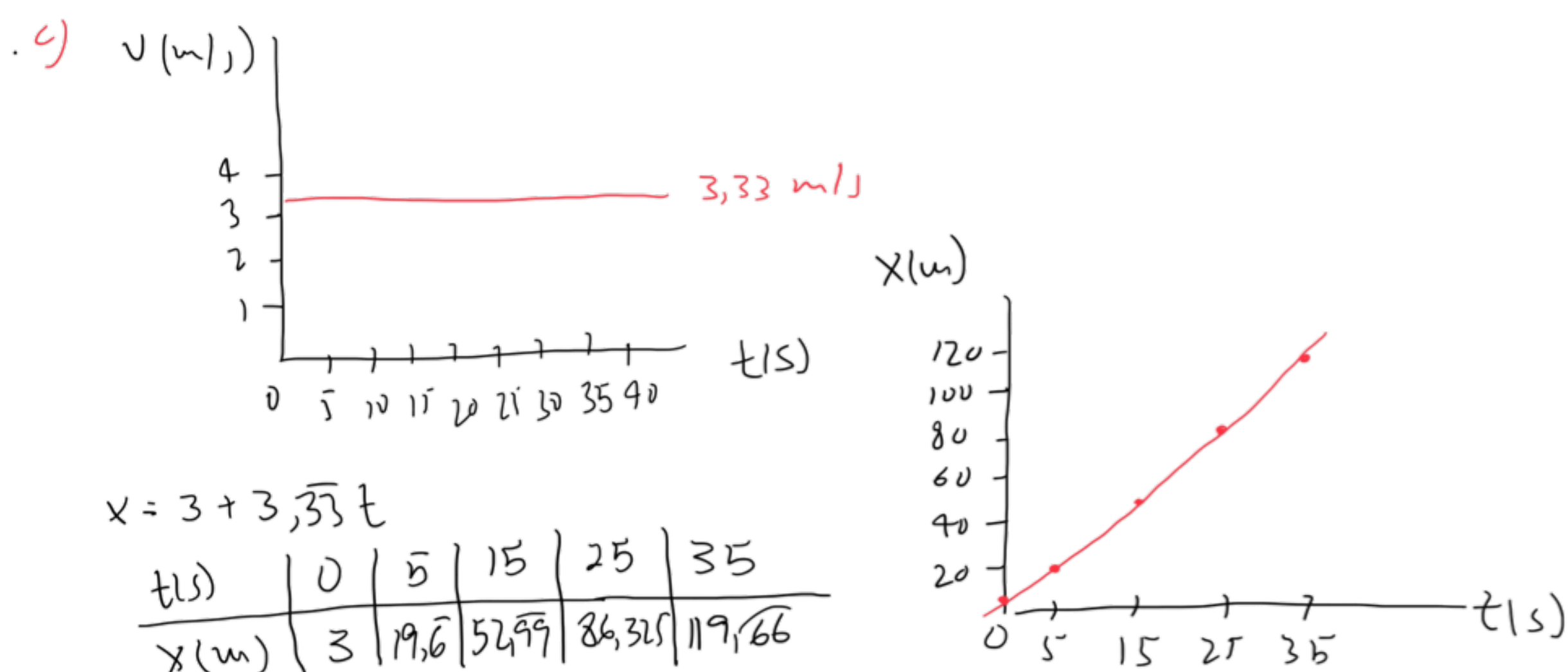


9)



$$v = \frac{\Delta x}{\Delta t} = \frac{53-3}{15-0} = \frac{50}{15} = [3,33 \text{ m/s}]$$

b) Ecuació moviment $\rightarrow x = 3 + 3,33t$
 $x(t=34s) = 3 + 3,33 \cdot 34 = [116,33 \text{ m}]$



10)

a)b)



$$v = \frac{72 \text{ km}}{h} \cdot \frac{10^3 m}{1 \text{ km}} \cdot \frac{1h}{3600s} = 20 \text{ m/s}$$

$$v = \frac{54 \text{ km}}{h} \cdot \frac{10^3 m}{1 \text{ km}} \cdot \frac{1h}{3600s} = 15 \text{ m/s}$$

$$[x_A = 20t]$$

$$[x_B = 500 - 15t]$$

$$20t = 500 - 15t$$

$$35t = 500$$

$$t = \frac{500}{35} = [14,28s]$$

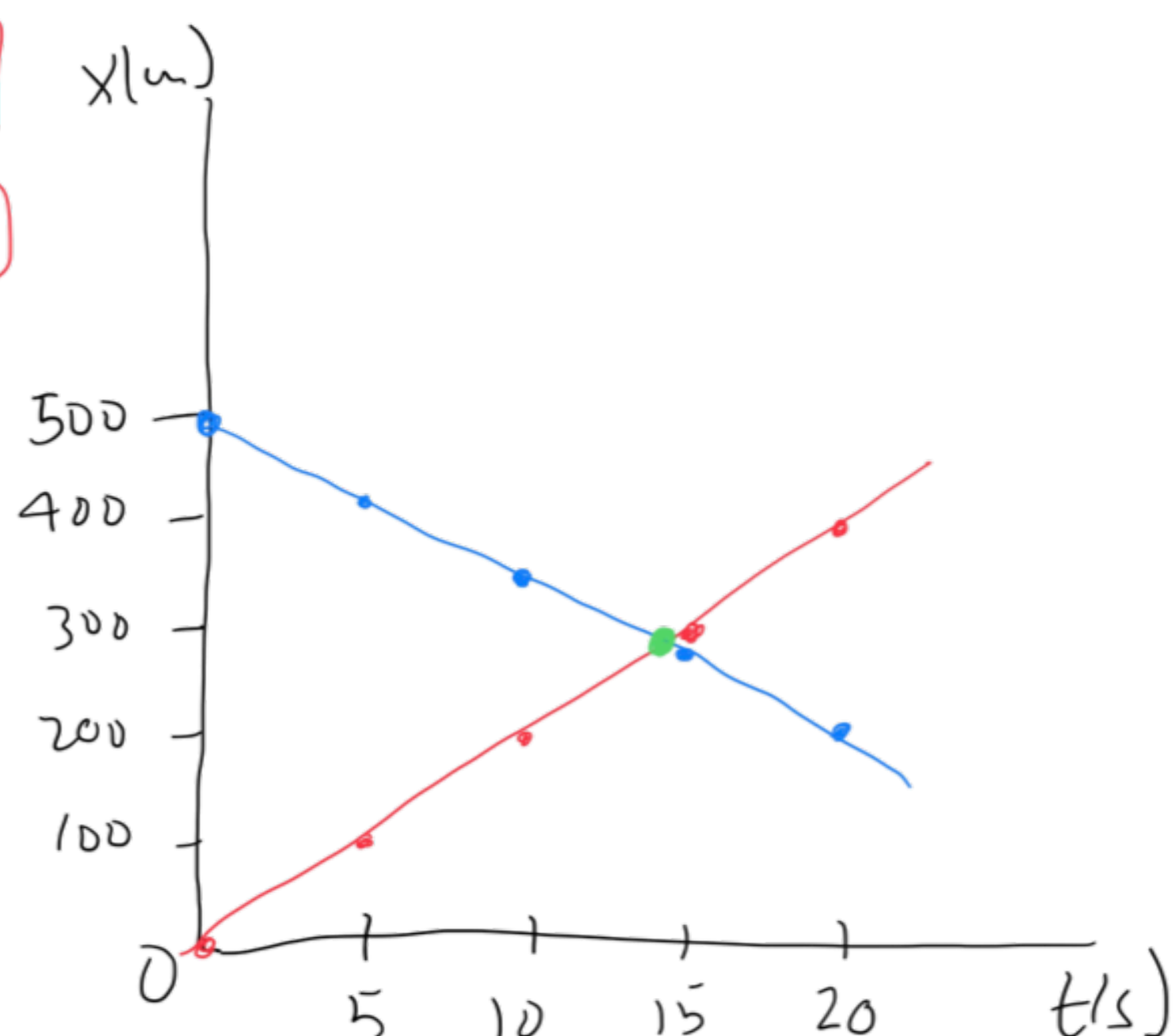
$$x = 20 \cdot 14,28 = [285,71 \text{ m}]$$

$$x_A = 20t$$

t(s)	x(m)
0	0
5	100
10	200
15	300
20	400

$$x_B = 500 - 15t$$

t(s)	x(m)
0	500
5	425
10	350
15	275
20	200



11)



a)

$$[x_A = 2 + 6t]$$

$$[x_B = 200 - 5t]$$

$$2 + 6t = 200 - 5t$$

$$11t = 198$$

$$t = \frac{198}{11} = [18s]$$

$$x = 2 + 6 \cdot 18 = [110 \text{ m}]$$

12)

a) Taula amb temps fins les centèsimes $0,01s = 10 \text{ ms}$
 i la posició fins a les mil·lèsimes $0,001m = 1 \text{ mm}$

b) $t = 0s \rightarrow t = 2,23s$

$$v = \frac{\Delta x}{\Delta t} = \frac{7,582-0}{2,23-0} = 3,4 \text{ m/s}$$

$$t = 2,9s \rightarrow t = 3,14s$$

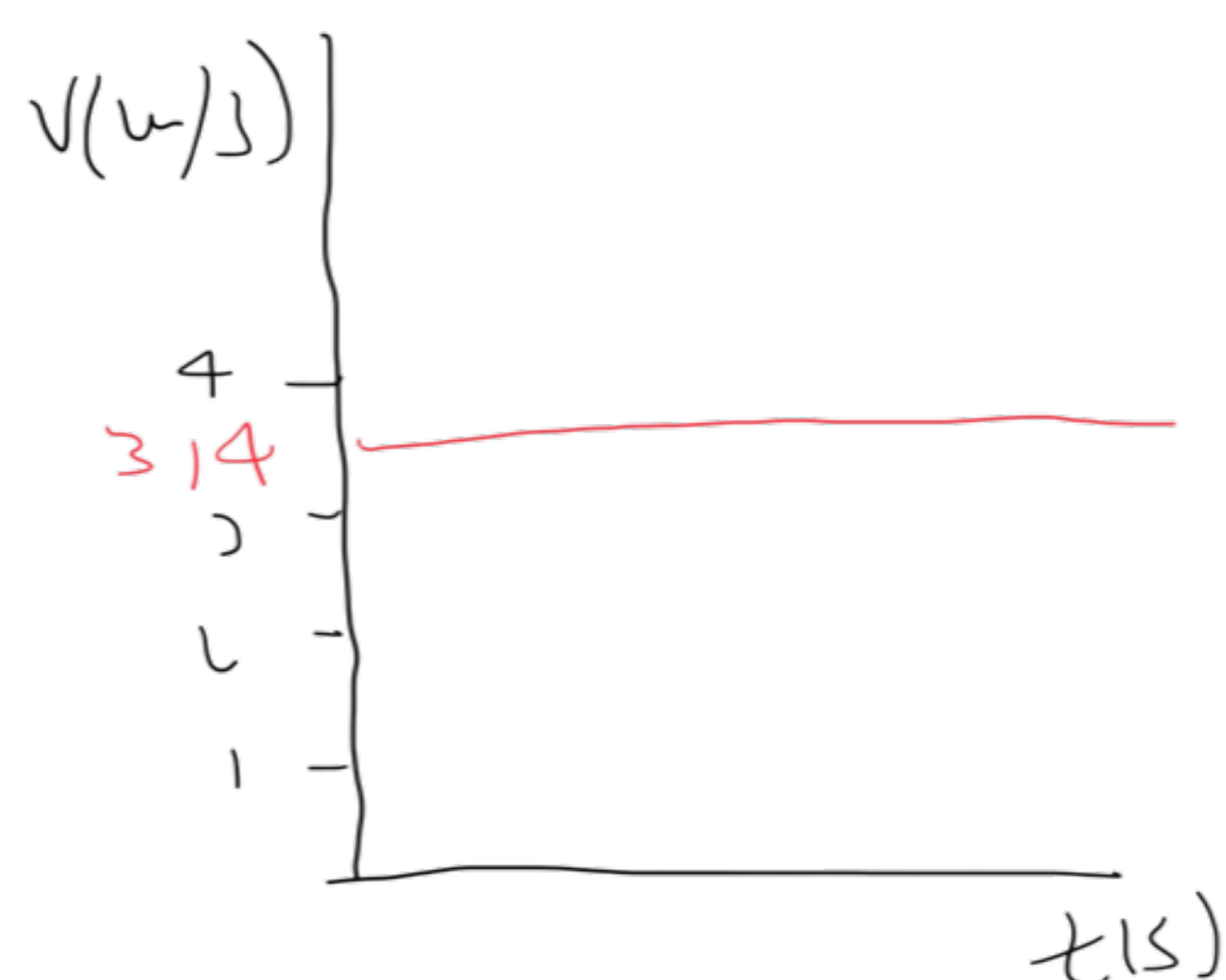
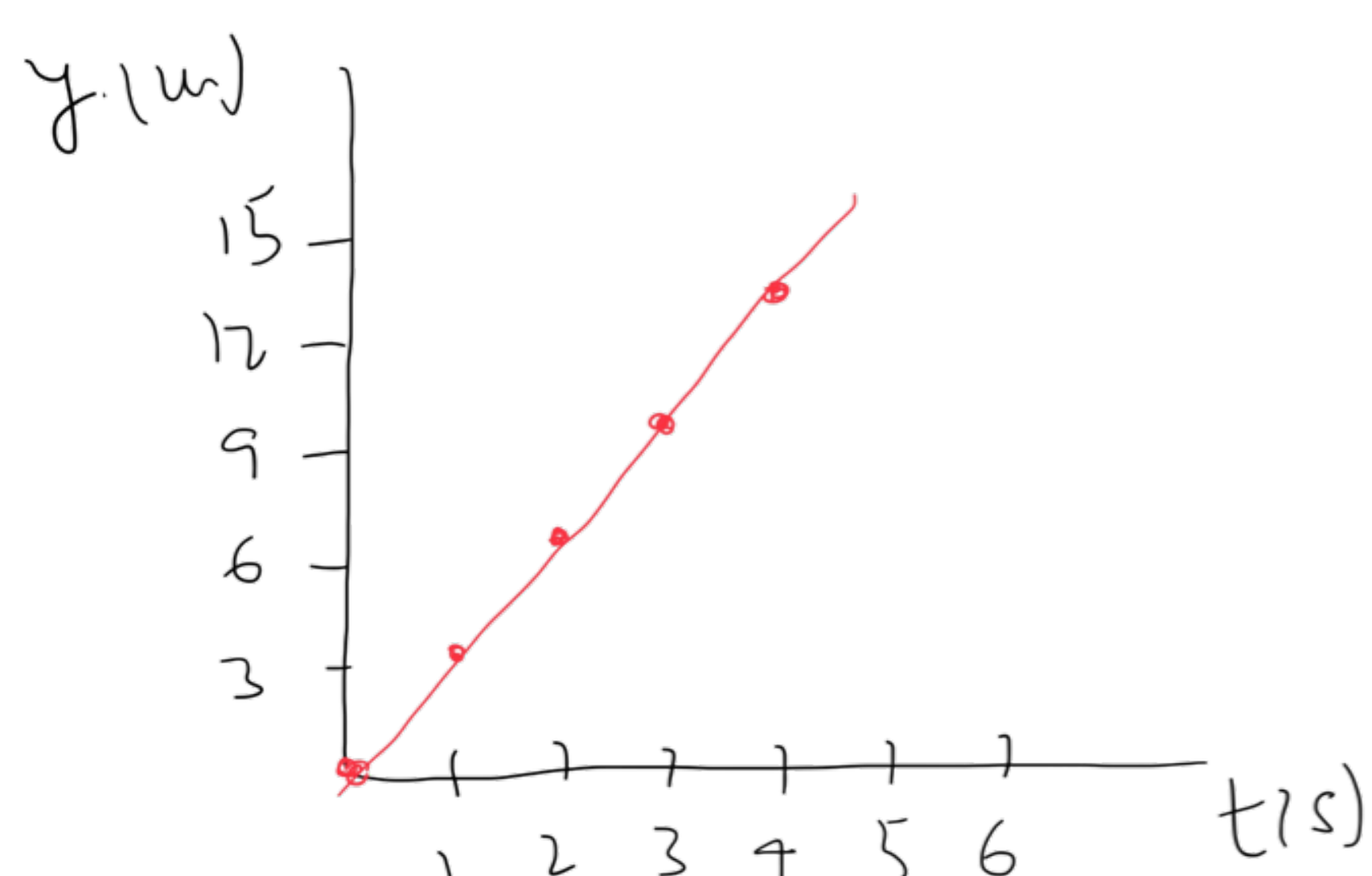
$$v = \frac{\Delta x}{\Delta t} = \frac{10,678-9,894}{3,14-2,9} = 3,4 \text{ m/s}$$

$$t = 0s \rightarrow t = 3,55s$$

$$v = \frac{\Delta x}{\Delta t} = \frac{12,07-0}{3,55-0} = 3,4 \text{ m/s}$$

Velocitat és igual als intervals $\rightarrow$ MRU

c)



d)

$y = y_0 + v(t-t_0) \rightarrow$ fem veure si
 és a l'eix OY
 el moviment!

$$[y = 3,4t]$$

$$t_0 = 0s : y_0 = 0m$$