

Given the data:

$t(s)$	$d(m)$	$v(m/s)$	$a(m/s^2)$
0	0		
5	3		
10	5		
15	9		
20	13		
25	19		
30	26		
35	35		
40	47		
45	59		
50	70		
55	85		
60	100		

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

$$\Delta t$$

slope of P-T

$$a = \frac{\Delta v}{\Delta t}$$

$$\Delta t$$

slope of V-T

\* velocity + acceleration are the averages of the time interval. Smaller the interval, the closer to instantaneous velocity.

(1) Calculate velocity:  $\frac{\Delta d}{\Delta t}$

(2) Calculate acceleration:  $\frac{\Delta v}{\Delta t}$

(3) Draw P-T graph

(4) Draw V-T

(5) Draw A-T