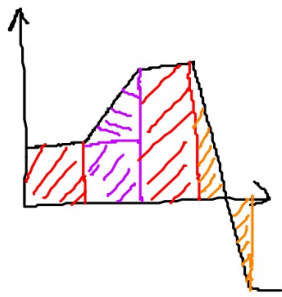


Cumulative Exam Review

Things you should know:

$$\text{average acceleration} = \frac{\Delta V}{\Delta t} = \frac{V_f - V_i}{t_f - t_i}$$

displacement \Rightarrow area under the curve of velocity-time graph



- $A_{\triangle} = \frac{1}{2} B \cdot h$

- $A_{\square} = B \cdot h$

- $A_{\text{trapezoid}} = A_{\triangle} + A_{\square}$

$B \Rightarrow$ time
 $h \Rightarrow$ velocity

Kinematic Equations

① $d_f = d_i + \bar{v} t$

② $V_f = V_i + \bar{a} t$

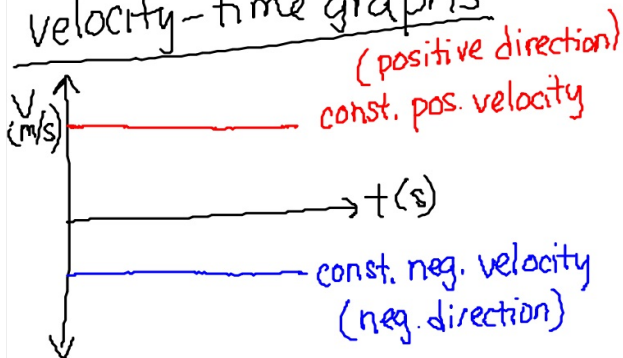
③ $d_f = d_i + V_i t + \frac{1}{2} \bar{a} t^2$

④ $V_f^2 = V_i^2 + 2\bar{a} (d_f - d_i)$

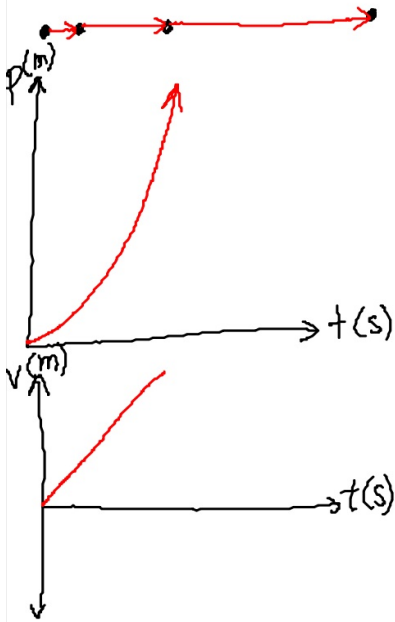
* apply them

* re-arrange to solve for a different variable

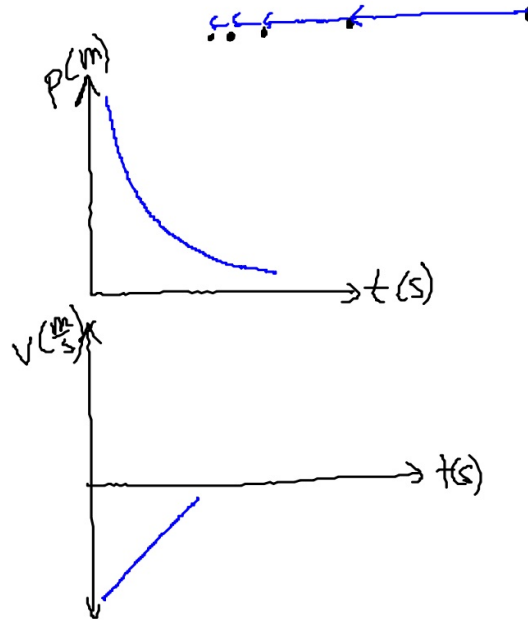
velocity-time graphs



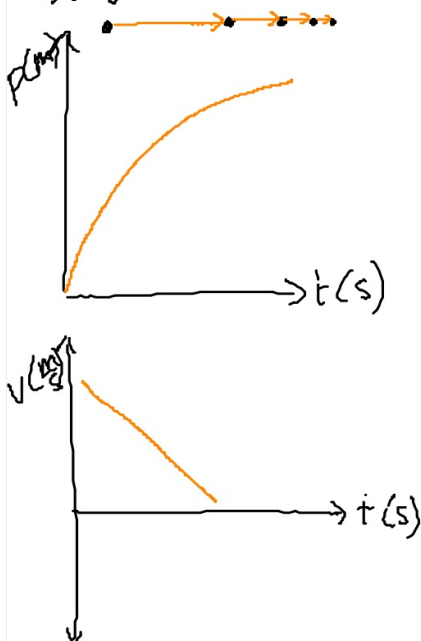
positive acceleration
 positive direction
 ↳ object is speeding up



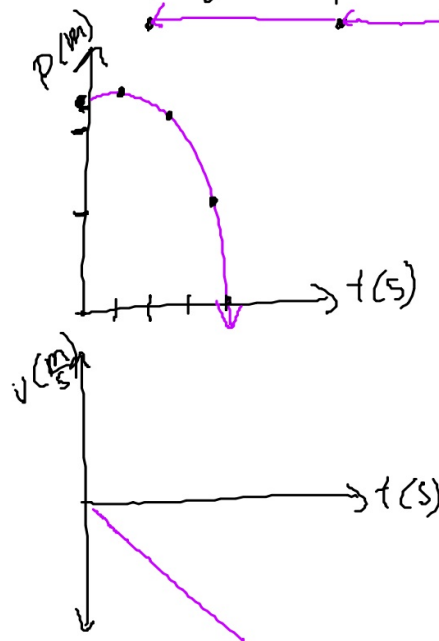
positive const. acceleration
 negative direction
 ↳ object is slowing down



negative constant acceleration
 positive direction
 ↳ object is slowing down

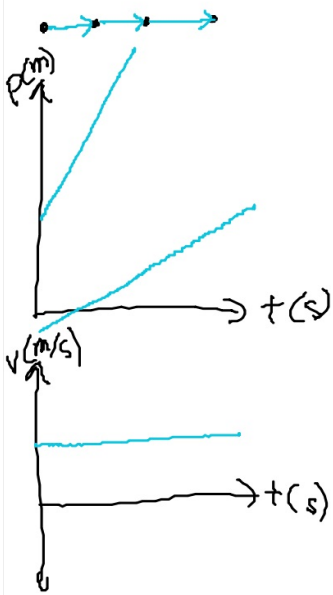


negative direction
 ↳ object is speeding up

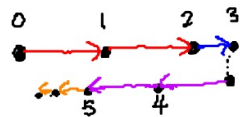
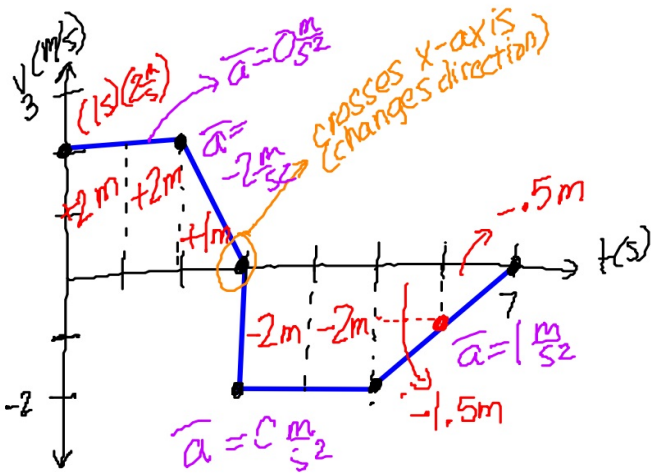
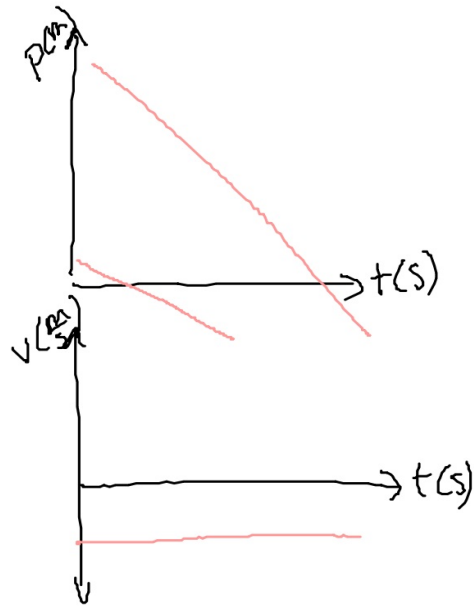


constant velocity

positive direction



negative direction



t(s)	p(m)
0	0
1	2
2	4
3	5
4	3
5	1
6	-0.5
7	-1

