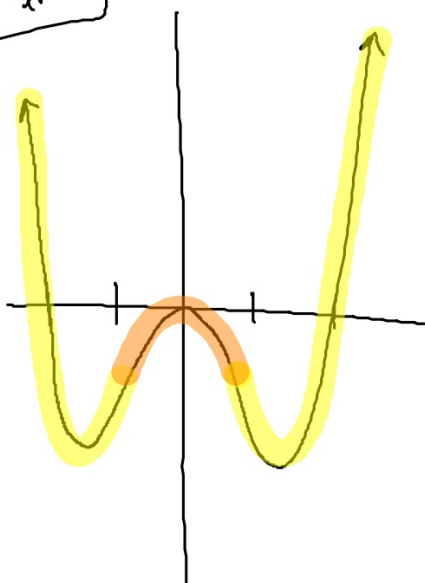


P. 215  
#22



a)  $f'(x) = 0$   $x = \pm 1.25, 0$

$f'(x) > 0$   $(-1.25, 0) (1.25, \infty)$

$f'(x) < 0$   $(-\infty, -1.25) (0, 1.25)$

b)  $f''(x) = 0$   $x = \pm .7$

$f''(x) > 0$   $(-\infty, -.7) (.7, \infty)$

$f''(x) < 0$   $(-.7, .7)$

P. 215  
#25

$$x(t) = t^2 - 4t + 3$$

$$v(t) = 2t - 4$$

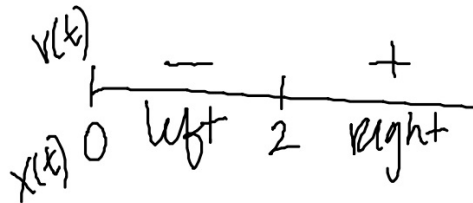
$$a(t) = 2$$

At rest

$$2t - 4 = 0$$

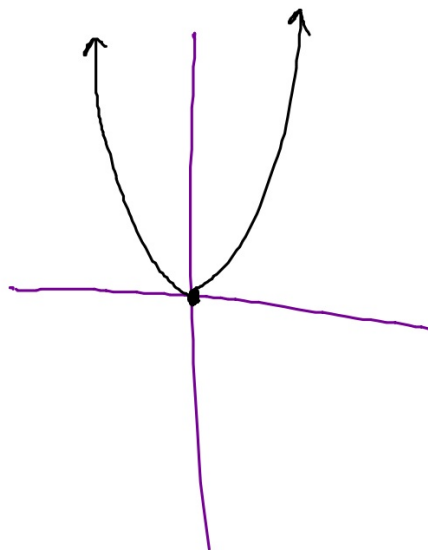
$$2t = 4$$

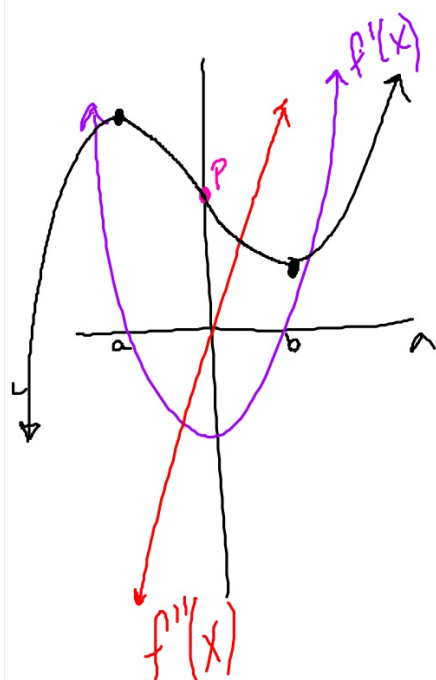
$$t = 2$$



$f'(x) < 0$  for  $x < 0 \Rightarrow$  Dec  $x < 0$

$f'(x) > 0$  for  $x > 0 \Rightarrow$  Inc  $x > 0$





Conc  $\downarrow$   $(-\infty, 0)$

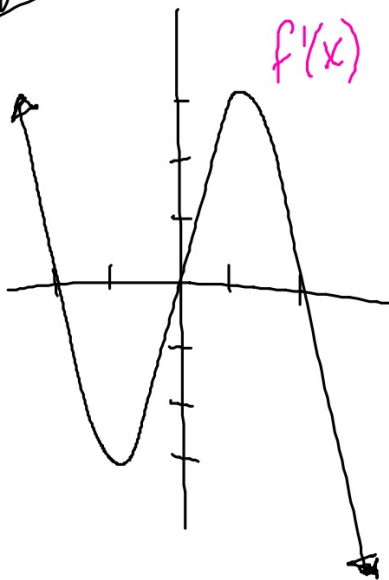
Conc  $\uparrow$   $(0, \infty)$

inc  $(-\infty, a)$  max

dec  $(a, b)$

inc  $(b, \infty)$  min

#23



$f(x)$  inc  $\rightarrow (-\infty, -2) (0, 2)$

$f(x)$  dec  $\rightarrow (-2, 0) (2, \infty)$

$f(x)$  local max  $\rightarrow x = -2, 2$

$f(x)$  local min  $\rightarrow x = 0$