

12-19-05 MON.

AP BY (80) A

2nd DERIV. TEST ONLY:

$$y = -2x^3 + 3x^2 + 36x - 6$$

SOLN: $y' = -6x^2 + 6x + 36 = 0$

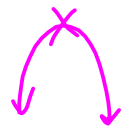
$$y' = -6(x^2 - x - 6) = 0$$

$$y' = -6(x-3)(x+2) = 0$$

$x=3; x=-2$ CRIT. #'S.

$$y'' = -12x + 6$$

$$y''(x=3) = -30$$



\therefore REL. MAX @

(3, 75)

$$y''(x=-2) = 30$$



\therefore REL. MIN @

(-2, -50)

AP (80) $f(x) = 2e^{4x^2}$

$$m_{\text{tan}} = f'(x) = 2 \cdot e^{4x^2} \cdot 8x = \underbrace{16x}_{y_1} \cdot \underbrace{e^{4x^2}}_{y_2} = 3$$

SOLVE
GRAPHICALLY

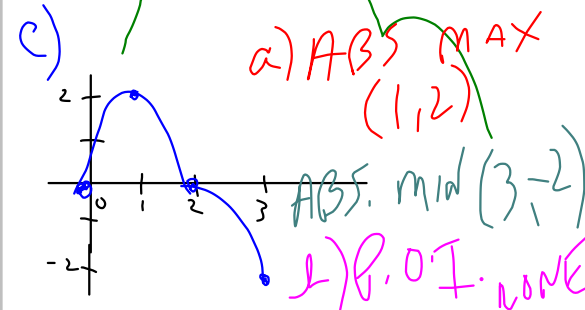
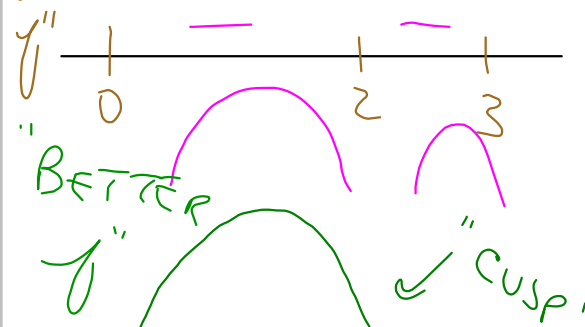
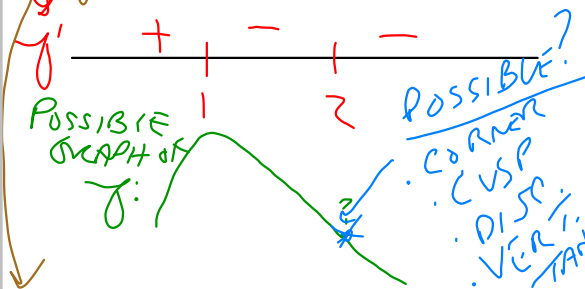
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INTEREST...

P.204 (33) 'CONNECTING f' AND f'' WITH THE GRAPH OF f .

x	0	1	2	3
f	0	2	0	-2
f'	3	0	D.N.E.	-3
f''	0	-1	D.N.E.	0

x	$0 < x < 1$	$1 < x < 2$	$2 < x < 3$
f'	+	+	-
f''	+	-	-



O.T.L.

P. 204-5 14, 17, 31, 34, 42

↑
*REDO, BUT WITHOUT CAS

APB⁴ #85

TEST THUR 4.1-4.3