Practice Test 3B

crit #s
$x = -2, 0, 2$

(5)

$f''(x) = 3x^2 - 4 = 0$

$x = \pm\sqrt{\frac{4}{3}}$ pts of inf

$(-\infty, -\sqrt{\frac{4}{3}})$ $(-\sqrt{\frac{4}{3}}, \sqrt{\frac{4}{3}})$ $(\sqrt{\frac{4}{3}}, \infty)$

$f''(-2) > 0$ $f''(0) < 0$ $f''(2)$

$+ +$ $- -$ $+ +$

$x = -2$ min $x = 0$ max $x = 2$ min

Answer C

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(6) using calculator

lim((4x^2 -1)^ 1/2 /x^2, x, ∞)

$= 0$ or recognize that

$\sqrt{4x^2} = 2x < x^2$

so denominator growing faster than numerator

so fraction goes to 0

Hope these answers are helpful!

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