

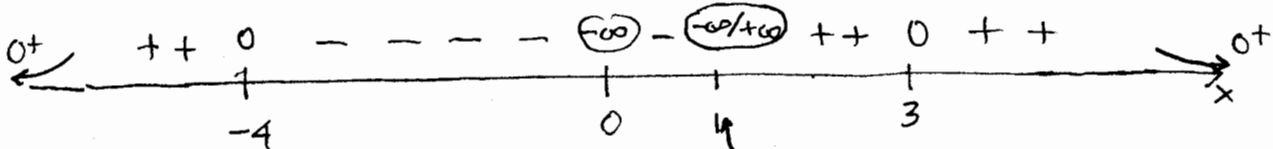
4.6.15* [produce several graphs that show all the details that one graph cannot supply, use MAPLE to find the (x,y) for the critical points and points of inflection, finally make an exaggerated hand sketch "road map" labeling all points with 3 significant digit accuracy that summarizes your results.

$$y = f(x) = \frac{\overset{\text{odd} \downarrow}{(x+4)} \overset{\text{even} \downarrow}{(x-3)^2}}{\underset{\text{even} \uparrow}{x^4} \underset{\text{odd} \uparrow}{(x-1)}} \quad \begin{cases} = 0 \rightarrow x = -4, 3 & \text{x-intercepts} \\ = 0 \rightarrow x = 0, 1 & \text{vert asymptotes} \end{cases}$$

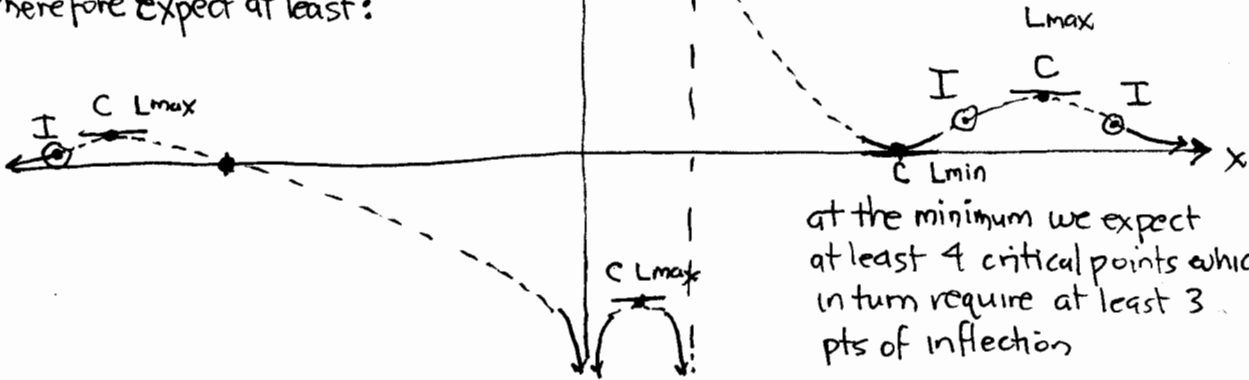
$$\sim \frac{x^{1+2}}{x^{4+1}} = \frac{x^3}{x^5} = \frac{1}{x^2} \rightarrow 0^+ \text{ as } x \rightarrow \pm\infty \quad \text{hor asymptote in both directions, squeezes from above}$$

odd factors — changes sign across $x = -4, 1$
 even factors — sign unchanged across $x = 0, 3$

f sign chart plus h-asymptote / v-asymptote info:



therefore expect at least:



final roadmap:

