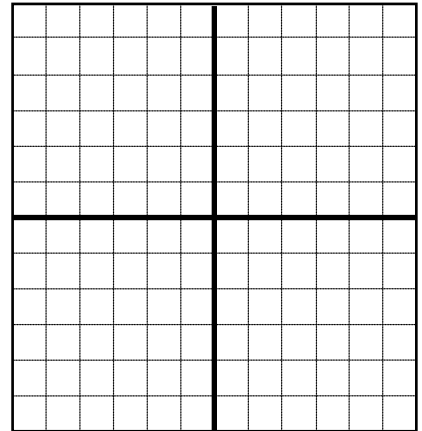


**(4.6) Graph Sketching and Asymptotes**

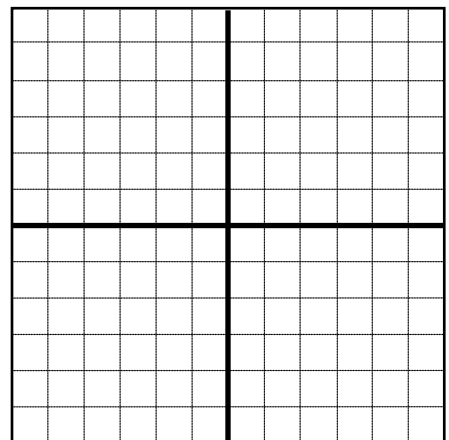
Sketch the curve. Identify the critical points and the inflection points.

1)  $f(x) = x^3 - 3x^2 + 5$



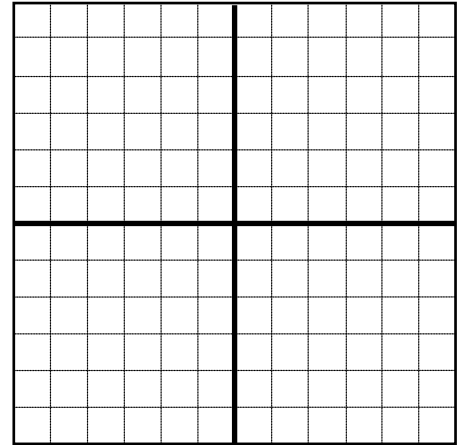
Sketch the curve. State the intervals on which the graph is concave up and concave down.

2)  $f(x) = \frac{x^2 - 1}{x - 3}$



Sketch the curve and identify the critical points and the inflection points.

3)  $f(x) = x - 3x^{1/3}$



Sketch the curve and state the extrema.

4)  $f(x) = x \tan x, \quad -\pi/2 < x < \pi/2$

