Math 16A (Summer 2007)

Kouba

Quiz 7

PRINT Name : _____

Exam ID # : _____

1.) (15 pts.) Consider the function $f(x) = \dfrac{x^2}{x-3}$. Compute the FIRST derivative and set up a sign chart for f' . Identify relative extrema (You need NOT determine absolute extrema.), including y-values, and state the open intervals on which f is increasing ($\uparrow$) and decreasing ($\downarrow$). You need NOT graph the function.

2.) (15 pts.) Assume that the SECOND derivative of function $f(x)$ is $f''(x) = x^4 - x^3 - 6x^2$. Determine the x-values for which f has inflection points.