NAME:

Show ALL your work CAREFULLY.

(a) Evaluate the improper integral
\[ \int_0^1 \frac{1}{\sqrt[3]{3x - 1}} \, dx. \]

(b) Use comparison to determine whether the improper integral
\[ \int_2^\infty \frac{1}{x + x^4} \, dx \]
converges or diverges. Justify your answer.

Date: March 11, 2009.