$\begin{array}{c} \mathrm{MTH}\ 132.12\ \mathrm{Quiz}\ 7 \\ \mathrm{Friday}\ 18\ \mathrm{March}\ 2011 \end{array}$

Name:

Show all your work. Points will be deducted for incomplete work. No calculators are allowed. Let $g(x)=(1-x^2)^{\frac{1}{3}}$.

1. What is g'(x)?

2. Find the critical points of g(x).

3. For each critical point, say whether it is where g achieves a local maximum, a local minimum, or neither. Explain your reasoning.