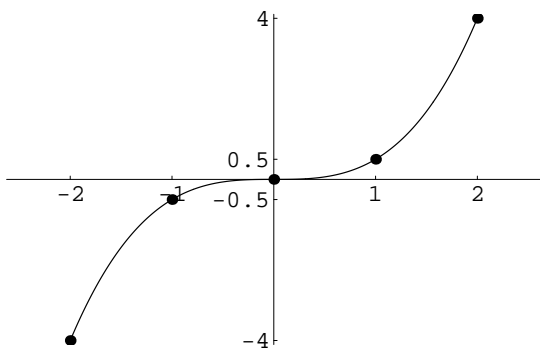


MATH 231
Quiz 8

Name _____
November 13, 2001

WRITE CLEARLY AND SHOW ALL YOUR WORK. YOU MAY USE A CALCULATOR.

1. Sketch the reciprocal $\frac{1}{f(x)}$ of the graph $f(x)$ below. Identify and label the height (if it is finite) of the reciprocal at each of the points $x = -2$, $x = -1$, $x = 0$, $x = 1$, and $x = 2$.



2. Determine algebraically if the function $f(x) = -\frac{1}{4}x^{-\frac{5}{7}}$ is an even function, an odd function, or neither.

3. Write the reciprocal $\frac{1}{f(x)}$ of the function $f(x) = -3x^{\frac{2}{5}}$, as a power function in the form Cx^r , and list the domains and ranges of both $f(x)$ and $\frac{1}{f(x)}$.

4. Give three different polynomial functions with roots at $x = -5$, $x = 0$, and $x = 2$. (You can write them in any form you like.)