Math 171-501 Quiz 2 Fall 2007

Calculus

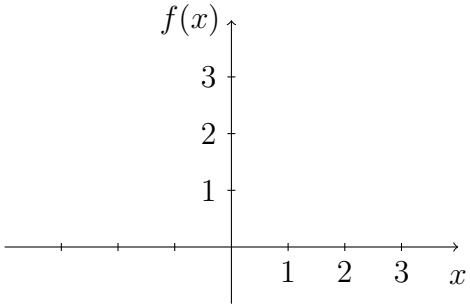
Instructions Please write your name in the upper right-hand corner of the page.

If you need more space to write your solutions, you may use the back of the page or a separate sheet of paper.

1. How is the word "asymptote" spelled?

2. The line that passes through the two points $(1, -1)$ and $(4, 5)$ has the standard Cartesian equation $y = 2x - 3$. Find an equation for this line either in the vector form $\vec{r}(t) = \vec{r}_0 + t\vec{v}$ or in the parametric form $x(t) = x_0 + at$ and $y(t) = y_0 + bt$.

3. Draw a graph that illustrates a function f with the properties that $\lim_{x \to 2^-} f(x) = 1$ and $\lim_{x \to 2^+} f(x) = 3$.



4. According to the precise definition of a limit, the meaning of the symbols "$\lim_{x \to a} f(x) = L$" is that for every positive number ε there corresponds a positive number δ such that [fill in the blanks]

_____ whenever _____ .