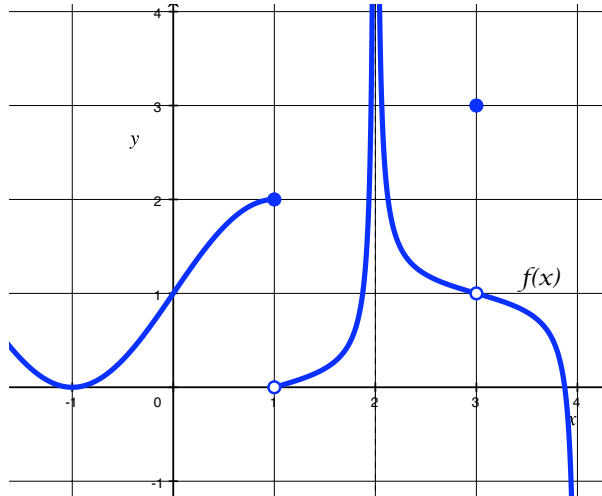


Math 124 Quiz #1
April 8, 2008

Name: _____

Show all work.

1. (4 pts.) For the function f whose graph is given below, state the value of each quantity. If the limit is infinite, state whether it is $+\infty$ or $-\infty$.



(a) $\lim_{x \rightarrow 1^-} f(x)$

(b) $\lim_{x \rightarrow 1^+} f(x)$

(c) $\lim_{x \rightarrow 2} f(x)$

(d) $\lim_{x \rightarrow 3} f(x)$

2. (6 pts.) Evaluate the following limits and infinite limits. Justify your answers. Do **not** use graphs or tables for justification.

(a) $\lim_{x \rightarrow 2} \left((x+1)\sqrt{3x^2 - x + 6} \right)$

(b) $\lim_{t \rightarrow -2} \frac{2t^2 + 4t}{t^2 + t - 2}$

(c) $\lim_{t \rightarrow 1^+} \frac{3t^2 + 6t}{t^2 + t - 2}$