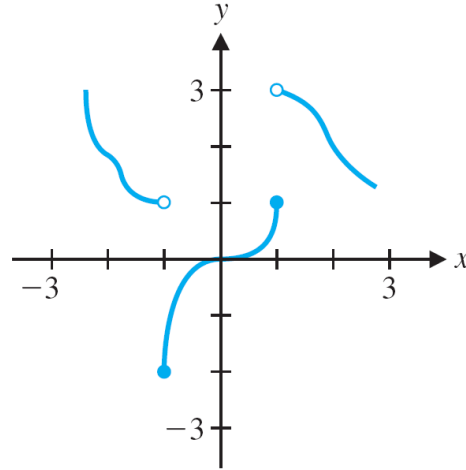


Quiz 2

Oct. 17, 2007

1. (10 pts) Identify the limits from the graph of $f(x)$

$$\begin{aligned} \lim_{x \rightarrow 1^-} f(x) &= \underline{1}, \\ \lim_{x \rightarrow 1^+} f(x) &= \underline{3}, \\ \lim_{x \rightarrow 1} f(x) &= \underline{DNE}, \\ \lim_{x \rightarrow 0^+} f(x) &= \underline{0}, \\ \lim_{x \rightarrow -1^-} f(x) &= \underline{1}. \end{aligned}$$



2. (10 pts) Evaluate the indicated limit, if it exists.

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$$\lim_{x \rightarrow 2} x^2 - 4 = 2^2 - 4 = 0$$

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$$\begin{aligned} \lim_{x \rightarrow 2} \frac{x^2 - 4}{x - 2} &= \lim_{x \rightarrow 2} \frac{(x - 2)(x + 2)}{x - 2} \\ &= \lim_{x \rightarrow 2} x + 2 \\ &= 2 + 2 \\ &= 4 \end{aligned}$$