

Name:

ID #:

Section 6

Serial #:

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**Q1.** (4 points) Sketch the graph of a function  $f$  that satisfies:

$\lim_{x \rightarrow 1^-} f(x) = -1$ ,  $\lim_{x \rightarrow 1^+} f(x) = -\infty$ ,  $f(1)$  undefined,  $\lim_{x \rightarrow 3^-} f(x) = +\infty$ , and  
 $\lim_{x \rightarrow 3^+} f(x) = 2$

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**Q2.** (6 points) If  $f(x) = \frac{|x-2|}{x^2+x-6}$  then find  $\lim_{x \rightarrow 2} f(x)$ .

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*With My Best Wishes*