

King Fahd University of Petroleum & Minerals  
Department of Mathematical Sciences

Math 101 - Sec. 5

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**Quiz # 1**

**Name:**

**ID #:**

**Semester 051**

**Section #:**

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Graph a function  $f : \mathbb{R} \rightarrow \mathbb{R}$  such that

1.  $\lim_{x \rightarrow 3^-} f(x) = 3$ .
2.  $\lim_{x \rightarrow -1^+} f(x) = -2$ .
3. The graph of  $f(x)$  has vertical asymptotes  $x = 1$  and  $x = 3$ .
4. The graph of  $f(x)$  has horizontal asymptotes  $y = -2$  and  $y = 5$ .