

King Fahd University of Petroleum and Minerals  
Department of Math & Stat  
**Math 101.12 Quiz I 071**

ID #: \_\_\_\_\_ NAME: \_\_\_\_\_

Serial # \_\_\_\_\_ Section #: \_\_\_\_\_

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1. If  $1 \leq f(x) \leq x^2 + 2x + 2$ , find  $\lim_{x \rightarrow -1} f(x)$ .

2. If  $\lim_{x \rightarrow -2} \frac{f(x) - 5}{x - 2} = 3$ , find  $\lim_{x \rightarrow 2} f(x)$ .

3. Prove that  $\lim_{x \rightarrow 2} (2x + 5) = 9$ .

King Fahd University of Petroleum and Minerals  
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**Math 101.18 Quiz I 071**

ID #: \_\_\_\_\_ NAME: \_\_\_\_\_

Serial # \_\_\_\_\_ Section #: \_\_\_\_\_

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1. If  $3 \leq f(x) \leq x^3 + 2$  for  $0 \leq x \leq 2$ , evaluate  $\lim_{x \rightarrow 1} f(x)$ .

2. If  $\lim_{x \rightarrow 0} \frac{f(x)}{x^2} = -2$ , find  $\lim_{x \rightarrow 0} f(x)$  and  $\lim_{x \rightarrow 0} \frac{f(x)}{x}$ .

3. Prove that  $\lim_{x \rightarrow 2} (5x + 4) = 14$ .