

**King Fahd University of Petroleum and Minerals**  
**Department of Math & Stat**  
**Math 132, Sections 1, 4 (102)**  
**Quiz 1(a)**

Time: 20 minutes

Marks: \_\_\_\_\_/9

---

Name: \_\_\_\_\_ Section #: \_\_\_\_\_

ID #: \_\_\_\_\_ Serial #: \_\_\_\_\_

---

1. Evaluate:  $\lim_{x \rightarrow \infty} \frac{7 - 6x^5}{x + 3}$ .

2. Find  $\lim_{x \rightarrow 0^-} \frac{e^{1/x}}{e^{1/x} + 1}$ .

3. Check  $f(x) = \frac{|x|}{x}$  for continuity at  $x = 1$ .

**King Fahd University of Petroleum and Minerals**  
**Department of Math & Stat**  
**Math 132, Sections 1, 4 (102)**  
**Quiz 1(b)**

Time: 20 minutes

Marks: \_\_\_\_\_/9

Name: \_\_\_\_\_ Section #: \_\_\_\_\_

ID #: \_\_\_\_\_ Serial #: \_\_\_\_\_

1. For  $f(x) = \frac{|x|}{x}$ , find  $\lim_{x \rightarrow 1^+} \frac{f(x) - f(1)}{x - 1}$ .

2. Let  $f(x) = \begin{cases} x + 2 & x \leq 0 \\ \frac{2}{x} & 0 < x \leq 1 \\ 2 - x & x > 1 \end{cases}$ . Check continuity of  $f(x)$  at  $x = 0, 1$ .

**King Fahd University of Petroleum and Minerals**  
**Department of Math & Stat**  
**Math 132, Sections 1, 4 (102)**  
**Quiz 1(c)**

Time: 20 minutes

Marks: \_\_\_\_\_/9

Name: \_\_\_\_\_ Section #: \_\_\_\_\_

ID #: \_\_\_\_\_ Serial #: \_\_\_\_\_

1. Let  $f(x) = \begin{cases} \frac{x^3 - 8}{x^2 - 4} & x \neq 2 \\ 3 & x = 2 \end{cases}$ . Check continuity of  $f(x)$  at  $x = 2$ .

2. Find  $\lim_{y \rightarrow -\infty} \frac{3}{y + 4}$ .

3. Evaluate:  $\lim_{x \rightarrow 0^+} \frac{e^{1/x}}{e^{1/x} + 1}$ .