King **F**ahd **U**niversity for **P**etroleum and **M**inerals
Department of Mathematics & Statistics
Term 172 Quiz#2 (2.4 & 2.5) Math 101 (19)

Full Name: ID# **Ser#**

Q1. **Using** the $\varepsilon - \delta$ definition, prove the statement $\lim_{x \to -1/\pi} (2 - \pi x) = 3$.

Q2. Find real α such that $f(x) = \begin{cases} \alpha^4 - 2x^2 & if\ x \leq 2 \\ x - 3\alpha^2 & if\ x > 2 \end{cases}$ is continuous.

Form A

King **F**ahd **U**niversity for **P**etroleum and **M**inerals
Department of Mathematics & Statistics
Term 172 Quiz#2 (2.4 & 2.5) Math 101 (19)

Full Name: ID# **Ser#**

Q1. **Using** the $\varepsilon - \delta$ definition, prove the statement $\lim_{x \to 2/\pi} (2 + \pi x) = 4$.

Q2. Find real α such that $f(x) = \begin{cases} \alpha^4 - x^2 & if\ x \leq 3 \\ 2x + 2\alpha^2 & if\ x > 3 \end{cases}$ is continuous.

Form B