

King Fahd Univ. of Petroleum and Minerals
Faculty of Sciences
Department of Mathematical Sciences

QUIZ No. 1
(MATH. 101-041 Sections 4 & 8)

Name:

ID:

Prob. 1

Find

$$\lim_{x \rightarrow +\infty} \frac{\cos(\pi/x)}{\pi/x}$$

Prob. 2

Assuming that m and n are positive integers, find

$$\lim_{x \rightarrow -\infty} \frac{3 + 7x^n}{-x^m + 4}$$

Prob. 3

Prove that

$$\lim_{x \rightarrow -\infty} \frac{x}{x+1} = 1$$