King Fahd University of Petroleum and Minerals

MATH 201 QUIZ #3 Term 171

Name:	Section:	Serial:

Q1. Find an equation of the plane that passes through the point $A = (-1, -2, 1)$ and contains the line of intersection on the two planes $2x + y - z = 2$ and $x - y + 3z = 1$.

Q2 Find the limit, if it exists, or show that the limit does not exist.

(a) $\lim\limits_{(x,y)\to(0,0)} \dfrac{x^4 + y^3}{x^2 + y^2}$

(b) $\lim\limits_{(x,y)\to(0,0)} \dfrac{y^4 \cos^2 x}{x^4 + y^4}$

Q3 Sketch the domain of the function $f(x, y) = cos^{-1}(y^2 - x)$ and find the range of f.