MATH 301 **Term 061** **QUIZ 1**

1) Given that $f(x,y,z) = \dfrac{xy^2}{z^3}$ compute the gradient. (HW: #3/page475)

$\nabla f(x,y,z) =$

2) Find the directional derivative of the function $f(x,y) = \dfrac{xy}{x+y}$ at the point $(2,-1)$ in

the direction of the vector $v = 6i + 8j$. (#13/page475)

$D_u f(2,-1) =$