

King Fahd University of Petroleum & Minerals  
Department of Mathematics and Statistics  
(Semester 121) Math 201 Quiz # 4

Name: \_\_\_\_\_ I.D. # \_\_\_\_\_ Sr. # \_\_\_\_\_

Consider the function  $f(x, y) = \frac{\sqrt{y - x^2}}{1 - x^2}$ .

- Find and sketch the domain of  $f(x, y)$ .
- Find a linearization of  $f(x, y)$  at the point  $(2, 5)$  and use it to approximate  $f(1.9, 5.02)$ .