Math 2415
Concept Quiz Questions on 14.3

1. Write down the limit definition of the partial derivative of $z = f(x, y)$ with respect to y at the point (x_0, y_0).

2. Make a sketch that illustrates how to interpret $\frac{\partial f}{\partial x}(x_0, y_0)$ as a slope.

3. Which of the following partial derivatives are always equal: f_x, f_y, f_{xx}, f_{xy}, f_{yx}, and f_{yy}?