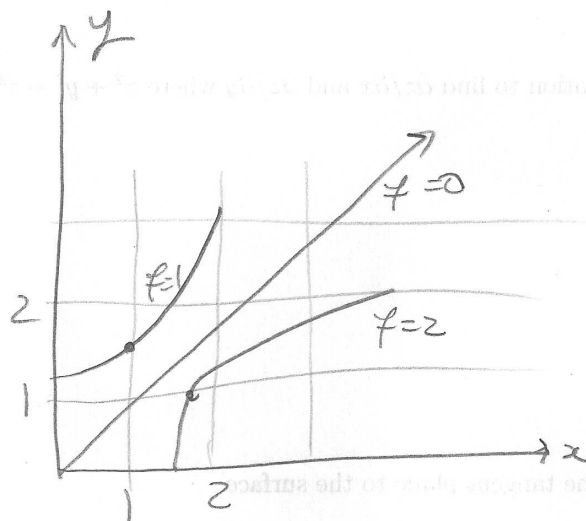


Math 53 Discussion

Quiz on Monday: Review sections 14.1-14.4. Quiz problems will be similar to the ones done on handouts in class.

Practice Problems: Sections 14.1-14.4. Partial derivatives, functions of two variables, tangent planes.

1) Estimate f_x and f_y at $(1, 1)$.



Over →

2) Find the first partial derivatives of $w = \ln(x + 2y + 3z)$.

3) Use implicit differentiation to find $\partial z/\partial x$ and $\partial z/\partial y$ where $x^2 + y^2 + z^2 = 3xyz$.

4) Find an equation of the tangent plane to the surface

$$f(x, y) = z = 3y^2 - 2x^2 + x$$