Partial Differentiation
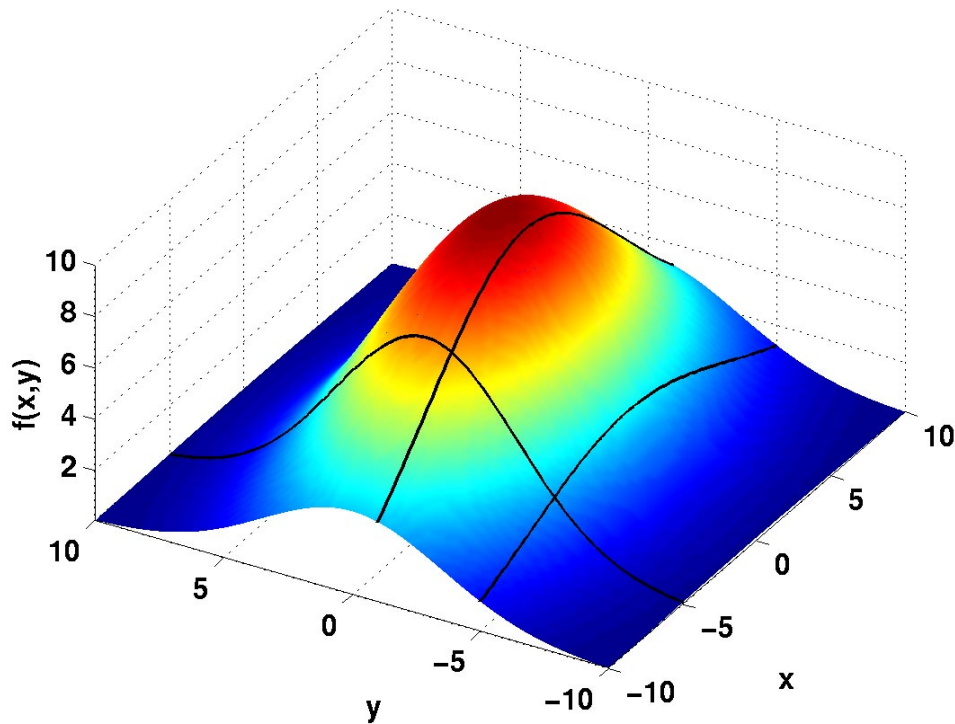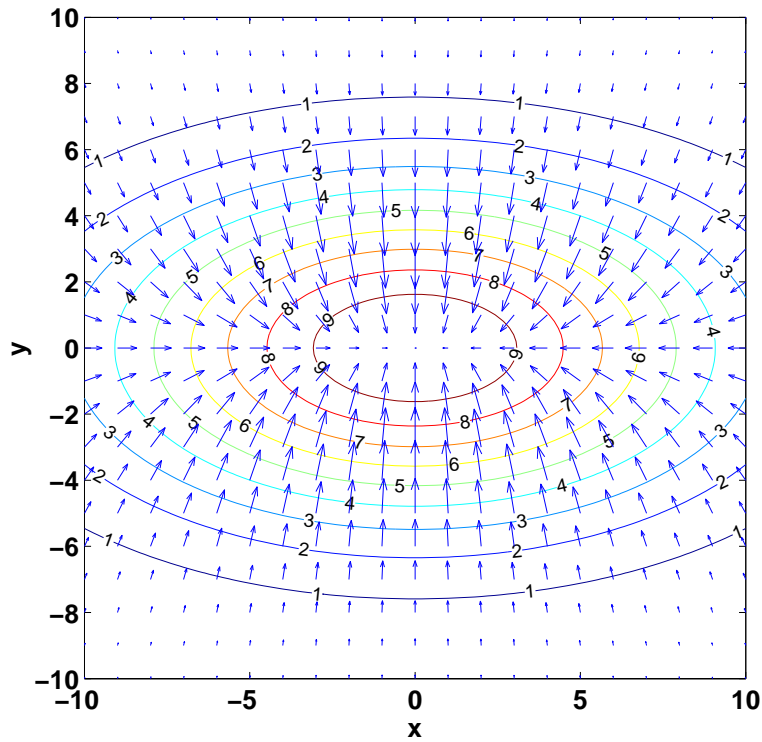

$$f(x,y) = \exp\left[-\left(\frac{x^2}{90} + \frac{y^2}{25}\right)\right]$$

$$\frac{\partial f}{\partial x} = -\frac{2x}{90}\exp\left[-\left(\frac{x^2}{90} + \frac{y^2}{25}\right)\right]$$

$$\frac{\partial f}{\partial y} = -\frac{2y}{25}\exp\left[-\left(\frac{x^2}{90} + \frac{y^2}{25}\right)\right]$$

Partial Differential Operators

$\nabla f(x,y)$

$\nabla^2 f(x,y)$