

Math 213 Discussion Worksheet – Week 9

1. Let $F(x, y) = x^2 - y^2 - 2$. Find the derivative of F in the direction of the vector $\vec{v} = (1, 3)$ at the point $(3, 2)$.

2. Consider the following set of data points $\{(0, 0), (1, 1), (2, 4), (3, 9)\}$. (a) Find the line of best fit, and compute the corresponding sum of squared errors. (b)* Find the quadratic of best fit, and compute the corresponding sum of squared errors.