

Math 3298 Worksheet 6

Group members (1 to 4): _____

- (1) If $g(x, y) = x^{10} - xy$, $u(s, t) = s^2 - t$, and $v(s, t) = st - 1$, compute $\frac{\partial}{\partial s}g(u, v)$ at the point $s = 1, t = 3$.

- (2) Find the directions in which the function $f(x, y) = 2x^2 - y^2$ has directional derivative $4/5$ at the point $(1, 2)$.