Math 203 Spring 2019 Professor MG
Classwork 20   Name: _____

Show all work and circle/box your final answer. All answers must be simplified unless stated otherwise.

(1) Let $g(x, y, z) = \dfrac{x}{y - z}$. Compute $g(2, 3, 4)$ and $g(7, 46, 44)$

(2) Let $f(x, y) = xy$. Show that $f(2 + h, 3) - f(2, 3) = 3h$

(3) Suppose that during a certain time period the number of units of goods produced with x units of labor and y units of capital is given by the Cobb-Douglas production function $f(x, y) = 40x^{1/2}y^{1/2}$.

    (a) How many units of goods will be produced with 16 units of labor and 16 units of capital?

    (b) Determine the level curve at 100.

(4) If A dollars are deposited into a bank at a 6% continuous interest rate, the amount in the account after t years is $f(A, t) = Ae^{0.06t}$. Find and interpret $f(10, 11.5)$. (you can round your answer to two decimal places)