# MATH FOR BUSINESS: CALCULUS, SPRING 2017 - PROBLEM SET 10

Name: _____

Use this worksheet as the cover sheet for your write-up: write your name on this page, and staple this sheet to the front of your homework packet.

You will receive no credit for submitting solutions that the grader cannot read and understand—be sure to write legibly!

**Problem 1.** Evaluate the following integrals:

(1)
$$\int_{-1}^{3} x^5 dx$$

(2)
$$\int_{0}^{4} (6x - 5) dx$$

(3)
$$\int_{0}^{4} (2v + 5)(3v - 1) dv$$

**Problem 2.** Find the general indefinite integral of:

(1)
$$\int 12x^3 dx$$

(2)
$$\int (x + e^x) dx$$

**Problem 3.** Find the avg value of the function on the given interval.

(1) $f(x) = 4x - x^2 \quad [04]$
(2) $g(x) = \sqrt[3]{x} \quad [1, 8]$

**Problem 4.** Evaluate the integral by making the given substutition:

(1)
$$\int e^{-x} dx \quad u = -x$$

(2)
$$\int x^3 (2 + x^4)^5 dx \quad u = 2 + x^4$$

(3)
$$\int \frac{dt}{(1 - 6t)^4} \quad u = 1 - 6t$$

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*Date*: Tuesday May 5th, 2017.