MATH 134 – Calculus with Fundamentals 2
Quiz 2 – February 9, 2018

Your Name: _____

Directions

There are 30 total points possible (distributed as indicated in the questions on both sides). You may use a calculator, but not a phone or any other electronic device. I. Consider the function $f(x) = x^{5/6} + 3x + 1$

A. (10) Find a general antiderivative (= indefinite integral) for $f(x)$

B. (5) Use your answer in part A to compute the definite integral

$$\int_1^2 x^{5/6} + 3x + 1 \, dx$$

(you can leave your answer in exact form; a decimal is not necessary)

II. Find the following antiderivatives (= indefinite integrals)

A. (7.5) $\int \cos(x) - \sin(x)\ dx$

B. (7.5) $\int \frac{5}{x^2+1} + \frac{1}{x}\ dx$?