

AMSC/CMSC 460 Quiz 4 , Fall 2001

Show all work. You may leave arithmetic expressions in any form that a calculator could evaluate. By putting your name on this paper, you agree to abide by the university's code of academic integrity in completing the quiz. Use no books, calculators, cellphones, communication with others, scratchpaper, etc.

Name _____

Student number _____

1. (10) Use the composite trapezoidal rule with 4 panels to compute an approximation to

$$\int_0^1 x^3 dx .$$

2. (10) Let

$$I = \int_2^3 \int_{-1}^x x^2 \cos(xy^2) dy dx .$$

Given a Matlab integration function `quad(a,b,'f')` that computes an approximation to

$$\int_a^b f(t)dt$$

write code to compute an approximation to I .