

“QUIZ” for Lecture 14

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E-MAIL SCANNED .pdf OF COMPLETED QUIZ to DrZcalc3@gmail.com (Attachment: q14FirstLast.pdf) ASAP BUT NO LATER THAN Oct. 26, 8:00pm

1. Evaluate the iterated integral

$$\int_0^1 \int_x^{3x} \int_0^y x^2 y z \, dz \, dy \, dx \quad .$$

From maple →

$$= \frac{10}{7}$$

2. Evaluate the triple integral

$$\iiint_E y z \ln(x^5) \, dV \quad ,$$

where

$$E = \{(x, y, z) \mid 0 \leq x \leq 1, 0 \leq y \leq x, 2x \leq z \leq 3x\} \quad .$$

$$\int_0^1 \int_0^x \int_{2x}^{3x} y z \ln(x^5) \, dz \, dy \, dx$$

$$= -\frac{1}{4}$$