"QUIZ" for Lecture 13

NAME: (print!) Wenhao Li **Section:** 22,23,24

E-MAIL SCANNED .pdf OF COMPLETED QUIZ to DrZcalc3@gmail.com (Attachment: q13FirstLast.pdf) ASAP BUT NO LATER THAN Oct. 22, 8:00pm

1. Change the order of integration in

$$\int_1^4 \int_0^{\ln y} f(x,y)\,dx\,dy \quad .$$

x=0..lny y=1..4
0<=x<=lny 1<=y<=4
x=lny y=e^x
0<=x<=ln4 e^x<=y<=4
int(intf(x,y))dydx y=e^4..4 x=0..ln4

2. Evaluate

$$\int_0^2 \int_{y/2}^1 \frac{1}{(x^2+1)^2}\,dx\,dy \quad ,$$

by inverting the order of integration and evaluating the new iterated integral.

x=y/2..1 y=0..2
y/2<=x<=1 0<=y<=2
y/2=x y=2x
0<=x<=1 0<=y<=2x
int(int1/(x^2+1)^2)dydx y=0..2x x=0..1
=1/2