## "QUIZ" for Lecture 9

NAME: (print!) Yongshan Li Section:23

E-MAIL SCANNED .pdf OF COMPLETED QUIZ to DrZcalc3@gmail.com (Attachment: q9FirstLast.pdf) ASAP BUT NO LATER THAN Oct. 5, 8:00pm

1. Find $\partial \mathrm{f} / \partial \mathrm{r}$ and $\partial \mathrm{f} / \partial \mathrm{s}$ as functions of r and s , if

$$
f(x, y)=x^{\wedge} 2+2 x y 2+2 y^{\wedge} 3
$$

and the variables are related by $x=r+2 s$ and $y=3 r+2 s$. You do not need to simplify!

2. Find $\partial z / \partial x$ and $\partial z / \partial y$ if

$$
x^{\wedge} 2+y^{\wedge} 2+z^{\wedge} 2=5 x y z+1
$$



