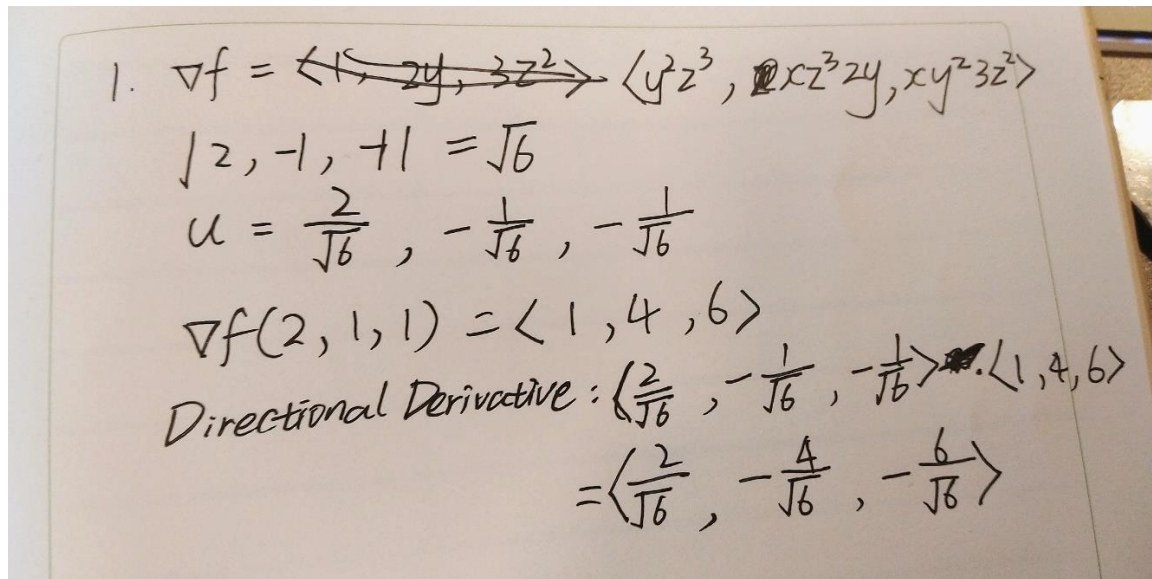NAME: (print!)   Yongshan Li **Section: 23**

E-MAIL SCANNED .pdf OF COMPLETED QUIZ to DrZcalc3@gmail.com (Attachment: qXFirstLast.pdf) ASAP BUT NO LATER THAN Oct. 1, 2020, 8:00pm
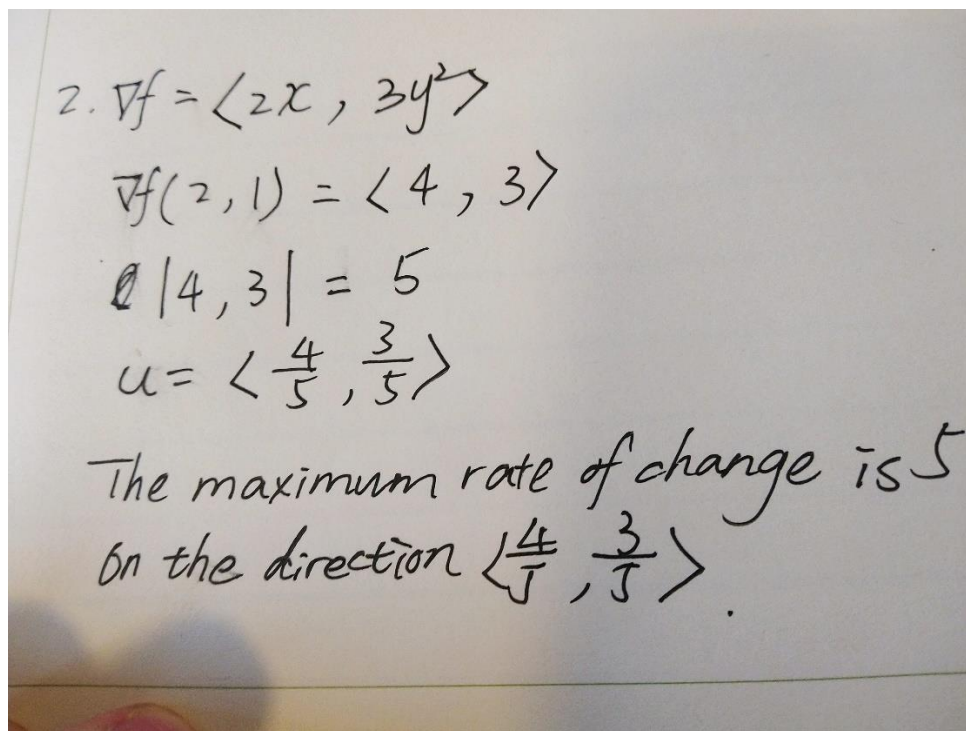
1. Find the directional derivative of the function f(x, y, z) = xy^2z^3 at the point (2, 1, 1) in the direction <2, −1, −1>.

2. Find the maximum rate of change of f(x, y) = x^2 + y^3 at the point (2, 1) and the direction in which is occurs.