

**“QUIZ” for Lecture 8**

**NAME:** (print!) \_\_\_\_\_ **Section:** \_\_\_\_\_

**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  $\langle 2, -1, -1 \rangle$ .

**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 it occurs.