## 2020 SPRING CALCULUS 0412: QUIZ 11 (MAY 11, 2020)

NAME: STUDENTS ID:

1. (5 points) Find equations of the tangent plane and the normal to  $2(x-2)^2 + (y-1)^2 + (z-3)^2 = 10$  at (3,3,5).

2. (5 points) If f is homogeneous of degree n, show that  $f_x(tx,ty) = t^{n-1} f_x(x,y).$