

Math. 102 (10)

Quiz 4

Name:

Signature:

Dept.:

Q) Let  $f$  be a fcn. of two variables that has continuous partial derivatives and consider the pts.  $A(1,3)$ ,  $B(3,3)$ ,  $C(1,7)$ , and  $D(6,15)$ . The directional derivative of  $f$  at  $A$  in the direction of the vector  $\vec{AB}$  is 3 and the directional derivative at  $A$  in the direction of  $\vec{AC}$  is 26. Find the directional derivative of  $f$  at  $A$  in the direction of the vector  $\vec{AD}$ .