Please show all your work! Answers without supporting work will not be given credit. Write answers in spaces provided.

Name: $\qquad$

Ex 1. The accompanying figure shows a contour plot for an unspecified function $f(x, y)$.

(a) What can you say about the signs of the $f_{x}(1,1)$ ?
(a) Positive
(b) Negative
(c) Zero

Why? $\qquad$
$\qquad$
$\qquad$
$\qquad$
(b) What can you say about the signs of the $f_{y}(1,1)$ ?
(a) Positive
(b) Negative
(c) Zero

Why? $\qquad$
$\qquad$
$\qquad$
$\qquad$

