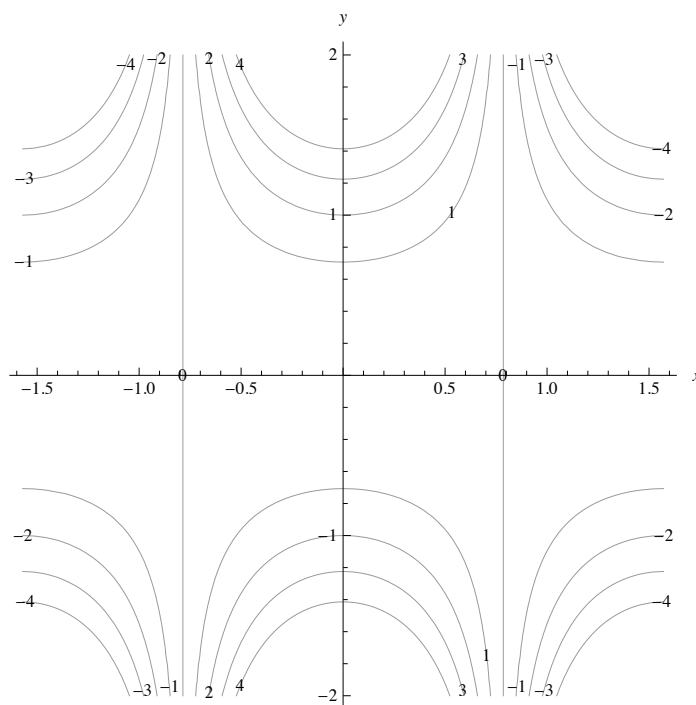


Name: _____

You have five minutes to complete the following problems, without using your notes or your book. A contour diagram for a function $f(x, y)$ is shown below.



1. State whether each of the partial derivatives below is positive, negative, or zero:

(a) $f_x(-0.2, -1.4)$

(b) $f_y(-0.2, -1.4)$

2. Four students estimated $f_x(0.5, 1.2)$ and $f_y(0.5, 1.2)$. For each estimate below, determine whether or not it is reasonable:

$f_x(0.5, 1.2) \approx$	0.2	-0.2	-4.8	2.5
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$f_y(0.5, 1.2) \approx$	2.8	0.4	-2.5	2.0
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