

Math 3330 - Quiz 6

Name: _____

1. Sketch the contour plot of $z = y^2 - x^2$ at several values.
2. Find the limits (or state they do not exist) for the following.

(a) $\lim_{(x,y) \rightarrow (0,0)} \frac{x^2 - xy + y^2}{x^2 + y^2}$

(b) $\lim_{(x,y) \rightarrow (0,0)} \frac{1 - e^{x^2 + y^2}}{x^2 + y^2}$

14.3: 5,7,15,53,59

14.4: 5,21