Full name: _____ **GT ID:**_____ **Sec:**____

Quiz 3 Version B

You have 15 minutes to take the quiz. No phones, notes, or use aids of any kind is permitted.

1. (2 points) Describe the level curves of the function $f(x, y) = 4x^2 + 9y^2$. *Choose the best option.* [A]

   ○ lines

   ○ ellipses

   ○ hyperbolas

   ○ parabolas

2. (8 points) [**Limits and Continuity**]
   Show that the limit does not exist. *Hint: use the Two-Path Test.* [AJN]

$$\lim_{(x,y)\to(0,0)} \frac{xy}{|xy|}$$