Math 241 (10am): Quiz 2 Your Name Here:

Consider the function $f\colon \mathbb{R}^2 \to \mathbb{R}$ given by $f(x,y) = -1 - (x-y)^2$.

1. Draw at least four level sets for f, labeling each by the value of f. (2 points)

2. Circle the correct answer: As you get farther from the origin the level sets get **closer together** or **farther apart**. (1 point)

3. Sketch the graph of f. Include the coordinate axes in your picture, and label each point where the axes intersect the graph. (2 points)