

Section 1.1 HW

Please give complete, well written solutions to the following exercises.

1. Sketch the region in the plane that solves the inequality

$$|x| + |y| \leq 1$$

Hint: Start by assuming both x and y are positive.

2. Consider the curve that satisfies the equation

$$x^4 - 4x^2 - x^2y^2 + 4x^2 = 0.$$

Is the curve the graph of a function?