

Exercise 24

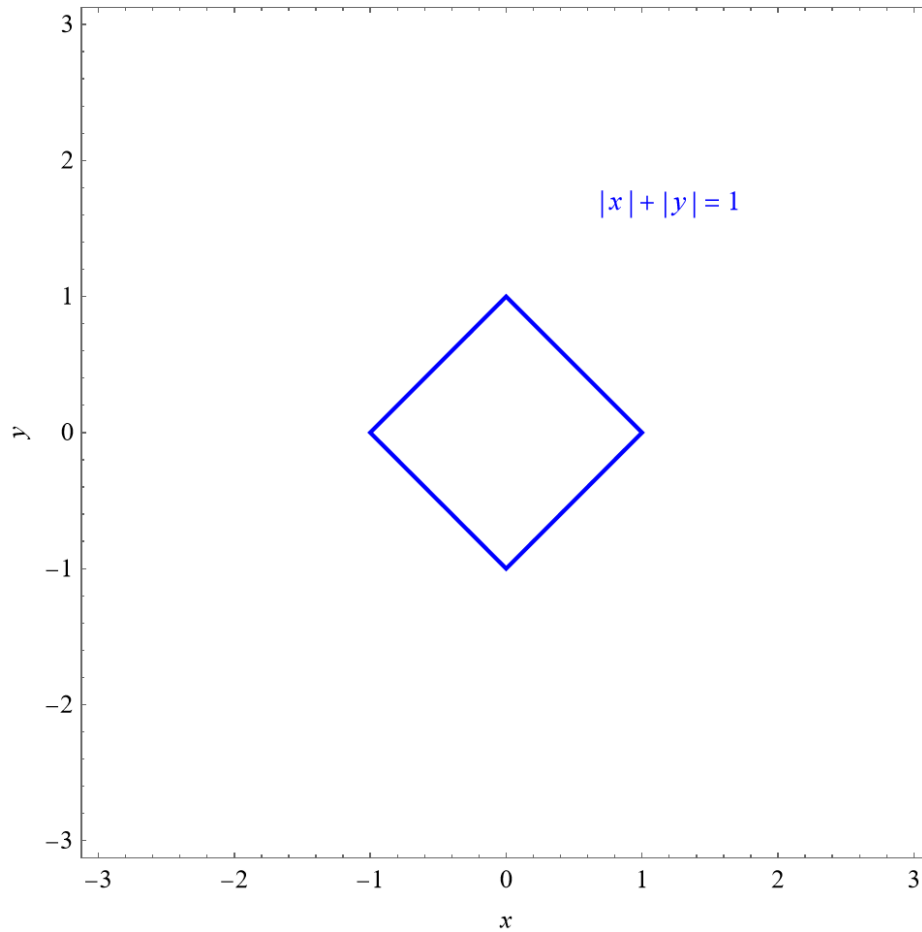
Graph the following equations and explain why they are not graphs of functions of x .

a. $|x| + |y| = 1$

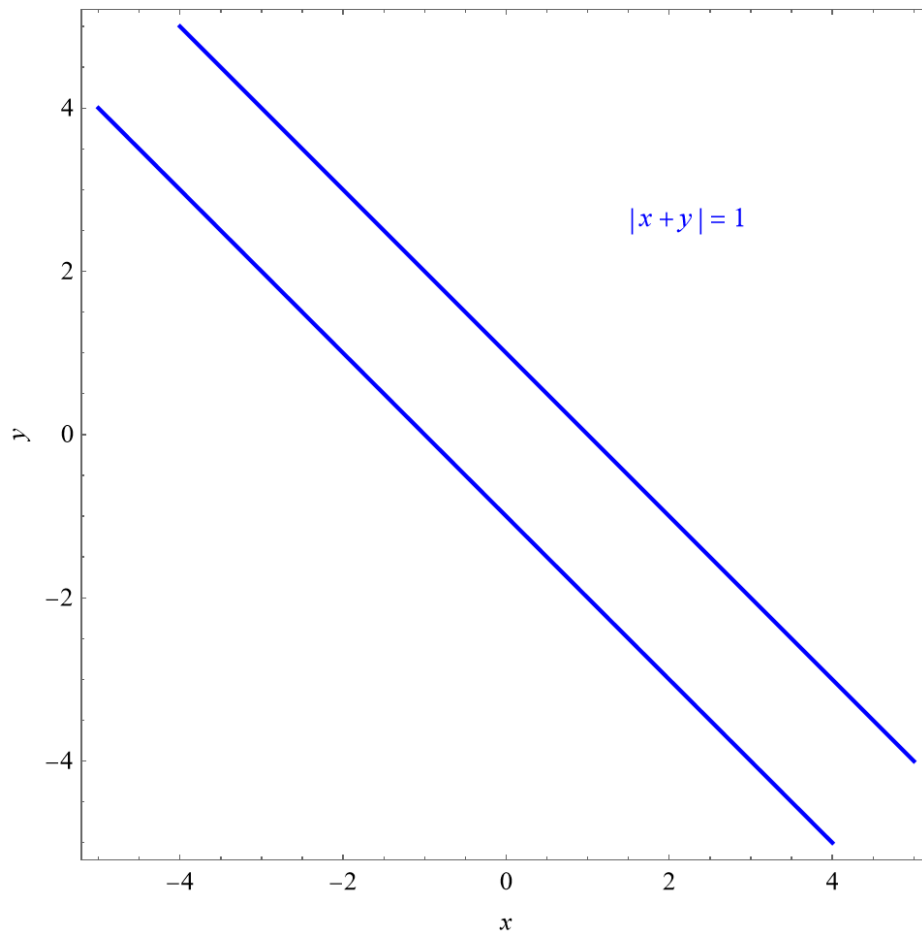
b. $|x + y| = 1$

Solution

Below is a graph of $|x| + |y| = 1$.



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These are not functions because they fail the vertical line test; in other words, there's more than one y -value for certain values of x .