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1. A rectangular channel, infinitely long in the z direction, extends from 0 to a in the x direction and from 0 to b in the y direction. Take the origin at the lower left corner of the rectangle. The right, left, and bottom sides are grounded while the voltage on the top increases linearly from 0 on the left to V_0 on the right.
 - (a) Find the voltage inside the channel as a series.
 - (b) Graph the voltage as a function of x and y using the plotting program of your choice.