Taller 2 Teoria Electromagnética

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Problem 2.20 One of these is an impossible electrostatic field. Which one? (a) E = k[xy ˆx + 2yz ˆy + 3xz ˆz]; (b) E = k[y2 ˆx + (2xy + z2) ˆy + 2yz ˆz]. Here k is a constant with the appropriate units. For the possible one, find the potential,

using the origin as your reference point. Check your answer by computing V. [Hint: You must select a specific path to integrate along. It doesn't matter what path you choose, since the answer is path-independent, but you simply cannot integrate unless you have a definite path in mind.]