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Analysis I
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HW 12

Due: Nov 25 in class. Justify all of your work.

1. X.3.2
2. X.3.4
3. Find a regulated map that is not piecewise continuous. Prove that it is regulated, and evaluate its integral.
Hint: a piecewise continuous function can only have a finite number of pieces.
4. Show that any function in $C([0, 1])$ can be approximated arbitrarily well (in a sup norm sense) by a function in $C^1([0, 1])$.