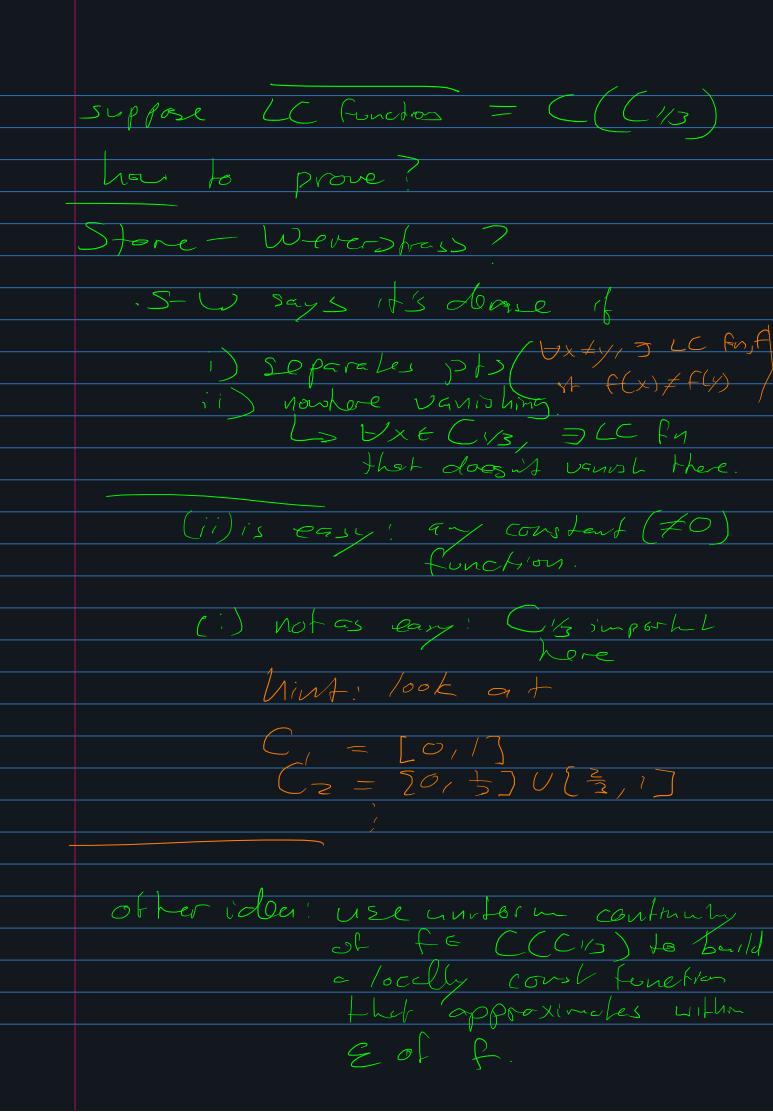
Problem	
is kondien	11.0.

Let us recall that by $C_{1/3}$ we denoted the standard Cantor set. Let $A \subseteq C(C_{1/3})$ be the set of real valued locally constant functions (a function $f:C_{1/3}\to\mathbb{R}$ is locally constant if for any $x\in C_{1/3}$ there exists an open neighborhood $U\subset C_{1/3}, x\in U$, such that $f|_U$ is a constant function). Is A a linear subspace in $C(C_{1/3})$? Is A a subalgebra of $C(C_{1/3})$? Is A dense in $C(C_{1/3})$?

, open smal

c) device in C((1/3) Q: what do L.C. fus (cok A: contest, idea: [0,1] convected. et a jump. Can you come up u/ a space where the localy coust fundates ac more interesting? es. [0,1] U[2,3] the CC for here take some const velue on [0,1] ?' deffered const on [2,3].



Problem 1.

Use the Stone-Weierstrass Theorem to confirm that piecewise-linear continuous functions are dense in $\mathbb{C}[0,1]$.

The Stone-Weierstrass Theorem, real scalars 12.9. Let X be a compact metric space, and let A be a subalgebra of C(X). If A separates points in X and vanishes at no point of X, then A is dense in C(X).

show DWC for separate points
E vou lere vanishing_
Show PWL are a subalg
(they event ! eg. f(x) =x)
nen 5-Widen; fec ((017))
cently cfs. use this to build
on approxing PWL guy.
Dini's thm: Suppore to cts
converses to f cts on cpct
Spece. X, where finds) = find(x)
then fin 3t.

