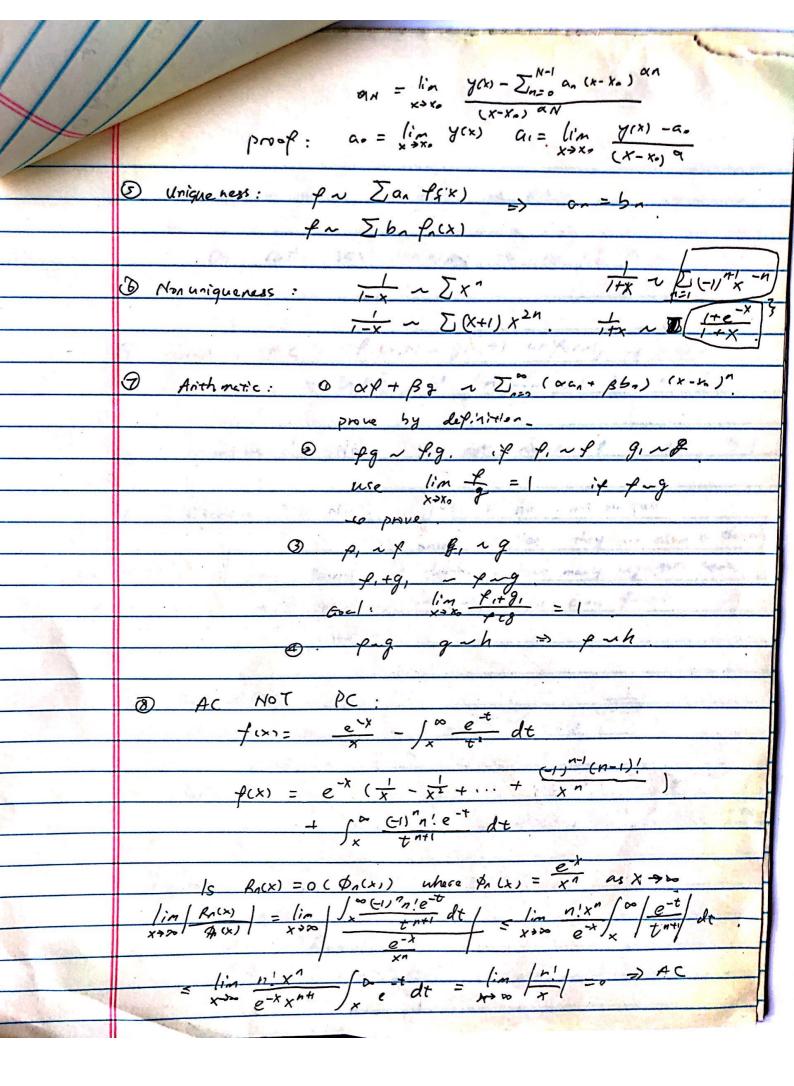
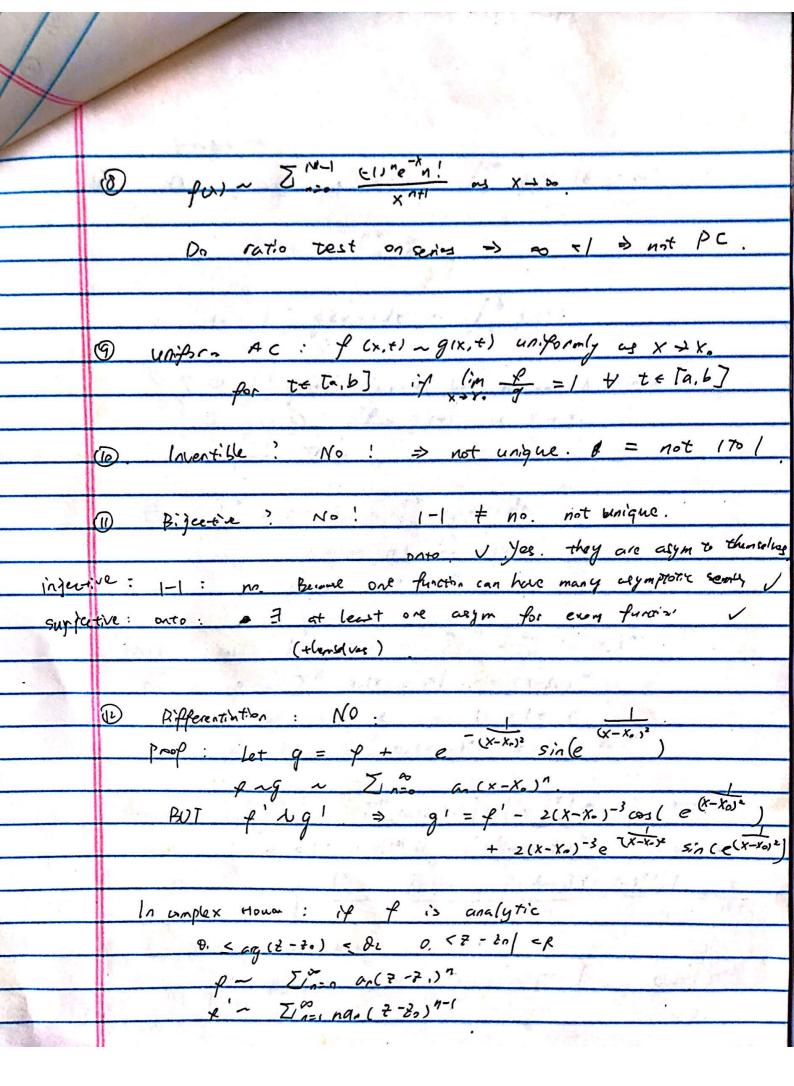
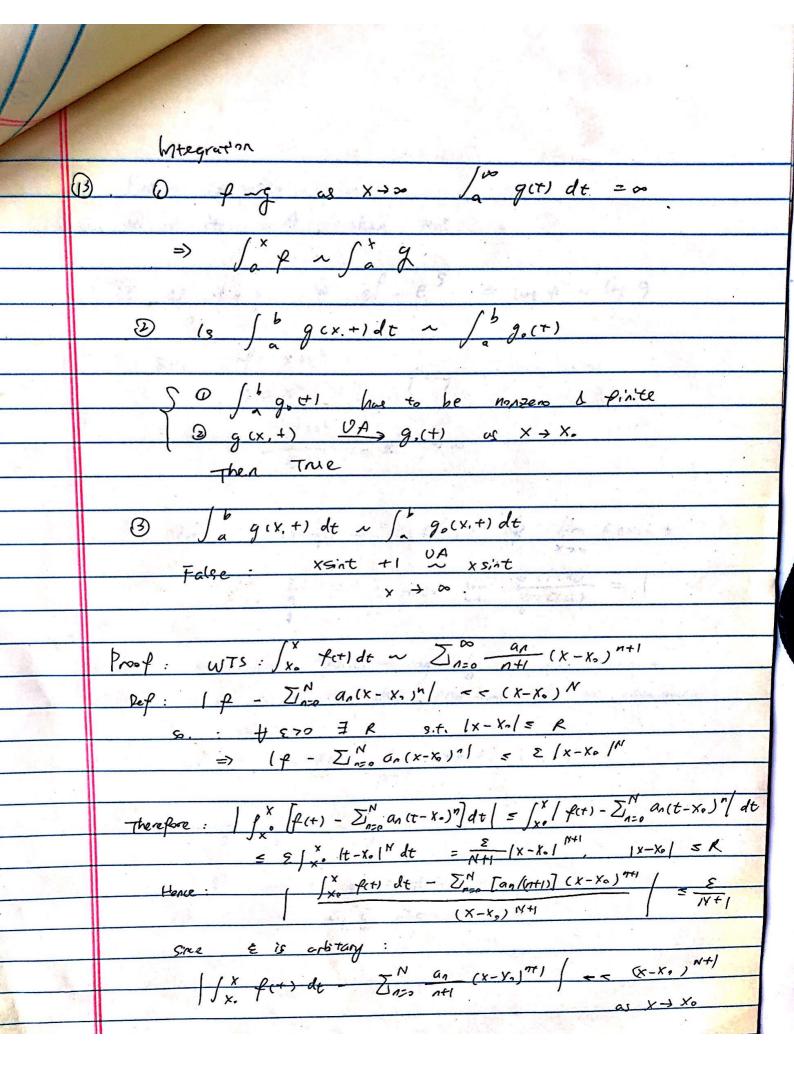
Asymptotics O Pointwise come gence An > A prome in Dix + x & D lim | fn-x | = 0 for > f prive in Dig + xED a + E> 0 7 N s.t. if NZN then Ign- ples Fix N >1 f(x) ~ Zingo and cx) where 3 \$ are Asymptotic conseque i.e. (pm = O(qn)) as x + x0 if for M = N | f(x) - ∑n=0 an φn(x) | → 0 as x → X0 in terms of functions: fing as x x x if xxx = ] I a function of a ai set of functions if (x)} frix > fix) proje 14 V X & D ling fa(x) = f(x)  $f_n(x) \rightarrow f(x)$  asymptotically as  $X \rightarrow X^*$ if to lim fock) = fcx s € uniform: + ETO = N. St. + n ≥ N, X & D => (+x & D) (Ancx) - fcx) < E

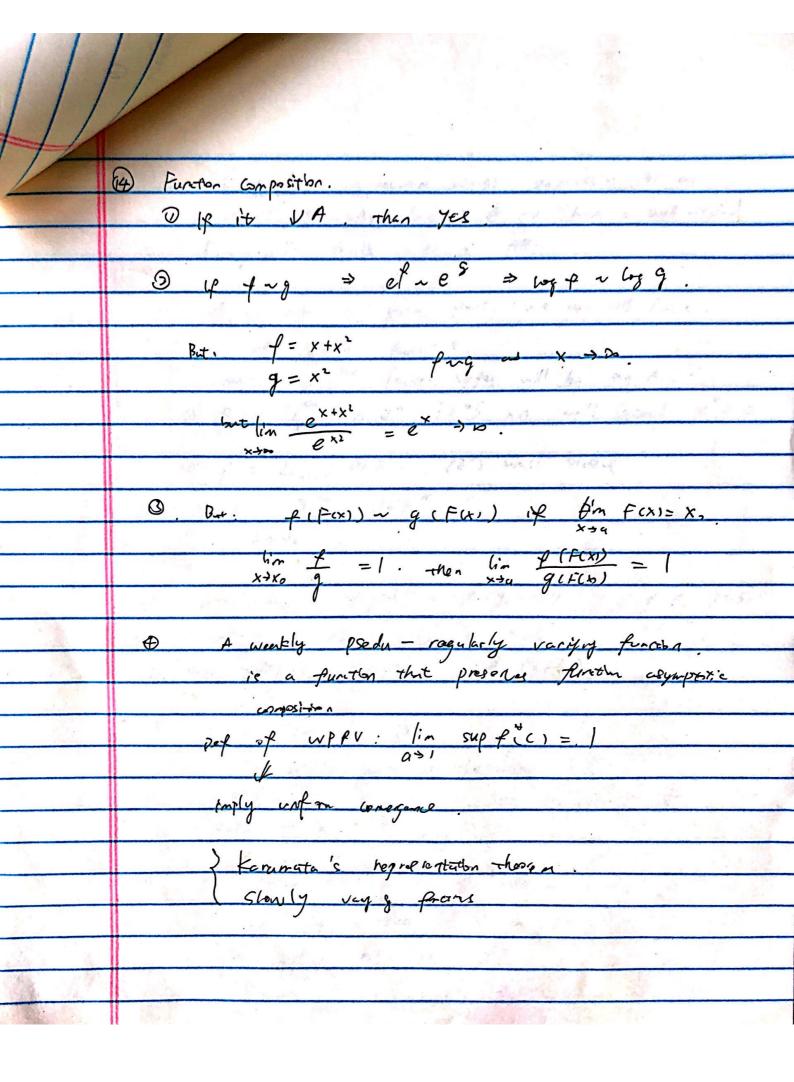
HWISE: YXED YETO JN. s.t. Y n = N

(-PA(X)-P(X)) = 2









1/	
	(15)
	If we have
	Lessential singulary the word
	[ cases time singularly then we do not have a well-orded family of function is no AE
	D 17 ve have a pole Point. we can soll have.
	a well-orell funcions.
	there fore the Laurest somes will be an A.E.
	Of = 500 a 27 5273 not well order 2 = 0
A	
	D f = [ = N an 2 " ] 2"   well order
4	pa Dien anza
	₹→ ₹•
1	
	(b) Distributive: $f(g+h) \sim f(g+h)$ (if for gre, gre,
à.	Transmiting : fing grah & freh
not proch	(?!!) Associativity, \$ +9)+h = \$+ (8+h)
1.71	
1, 4	@ \frac{1}{1} + \frac{1}{1} - \frac{1}{1}
	It is only unique at the frame order $\frac{1}{5in(\frac{1}{x})} \sim \frac{1}{x} - \frac{1}{3!} \frac{1}{x^2}$ .
- 1	SIN(\$1 ~ \frac{1}{x} \) but Sin(\$\frac{1}{x}) \rightarrow \frac{2}{x}.
- Anny	$S:n(\frac{1}{\lambda}) \sim \frac{1}{\lambda} - \frac{1}{3!} \frac{\chi^3}{\lambda^3}$
No. of the	511
<u>.</u>	but as $x \to \infty$ $f(x) \sim 1 + \frac{1}{x}$
P. R. San	So AC hit not PC.
Sec. 1	Prg as x > 0
A. Santa	(19) fews x 9=1= x+ f+g ws x+0 p+g ws x+b±0. #N
3	