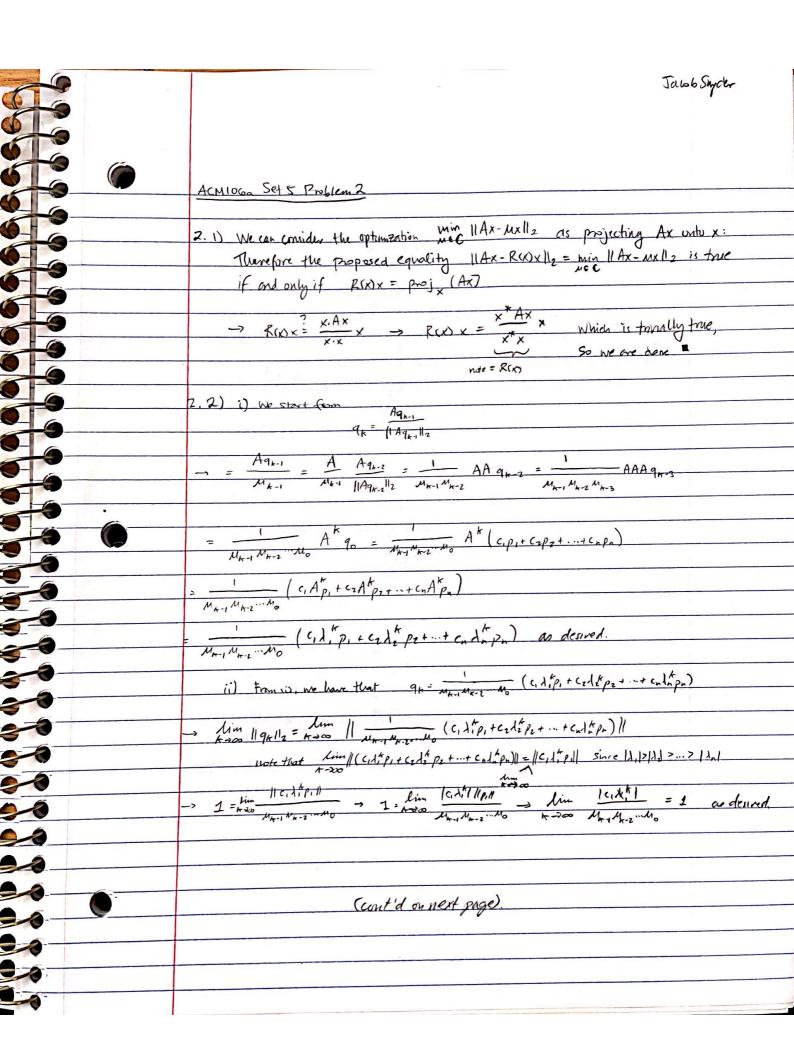
	ACMIDGa Set 5 Problem 1
	1. 2) As one might expect by the complexities of the methods, we see that SOR performs best (approaches the solution fustest) to the complexity. Gauss-Seidel
	SOR performs best (approaches the solution fustest) total
	is second-best, and Jacobi is slowest of the three (in terms of # of iterations).
Log or	
	3) It seems like the best w is either w=1.2 or w=1.4.
	4) The accuracy of the numerical solution does appear to the increase as E is lowered.
	as E is lowered.
	the state of the s
	Line is a marginal above agreement with the state of the
ger 2000	



	Jacob Smyder
	Acres Coles a (1 a control
6	A(Mlogg Set 5 Broblem 2 (cont'd)
6	1k 1k
	2-2) iii) 9/ = 0/ P1 + 0/ E1 / 1/ P2 + + 0/ C1/1/ Pm
0	-
	$\frac{1}{2}$
	-> lim 1= lim \alpha \land \land
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Lim 1 can do this pe sufficiently leage to since 1 pt 27 " cont 50 or
	$ \rightarrow $
	$\rightarrow \alpha_k - 1 = O(\beta_1 ^k) \text{ as desired.}$
	iv) q* Aqx = q* [ax Ap, +ax colleto
	TO JOK TOPE OF LEAST TO A COLOR TO
0	= 9x [xx l+p, + ca little pr + m+ xx cn little pr]
	0((1/20))
	("3[
	$= \lambda_{+} + O\left(\frac{\lambda_{z}}{\lambda_{1}}\right)^{k}$
	$\Rightarrow 19^{+}A9_{+}-1 = 0 \left(\left \frac{\lambda_{2}}{\lambda_{1}} \right ^{k} \right)$ as desired.
	The state of the s
-0	and the first the death
	V) Since A & Hermesian, you instead got
	$q \not = d_1 + O\left(\left(\frac{\lambda_2}{\lambda_1}\right)^{2k}\right)$
	-> 9k + 9x - 1, = 0 (1 1 2 1) as desired.
20	
9. 0 .	