## Problem 1, Part a)

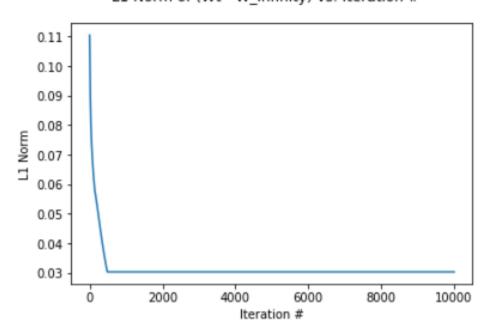
	Wt (t=10)		Wt (t = 100)	Wt (t=1000)	
Team		Team		Team	
Mary Hardin-Baylor	0.017640	Mary Hardin-Baylor	0.060847	Clemson	0.097376
Clemson	0.014032	Clemson	0.048803	Alabama	0.053666
Mount Union	0.012249	Alabama	0.027211	Georgia	0.023191
Morningside	0.011157	Mount Union	0.021396	Ohio State	0.022592
North Dakota St	0.010944	St John's MN	0.014651	Notre Dame	0.022337
Valdosta St	0.010343	Morningside	0.013446	Oklahoma	0.019113
St John's MN	0.009912	Valdosta St	0.012792	Texas A&M	0.016575
Alabama	0.009898	North Dakota St	0.012502	LSU	0.015152
UW-Whitewater	0.009683	Georgia	0.011877	Florida	0.015051
Ferris St	0.009671	Ohio State	0.011871	North Dakota St	0.014736
Johns Hopkins	0.009448	Notre Dame	0.011583	Kentucky	0.014335
Brockport St	0.006859	UW-Whitewater	0.011481	Texas	0.013914
Princeton	0.006811	Ferris St	0.011187	Michigan	0.013782
Minn St-Mankato	0.006735	Oklahoma	0.010029	Syracuse	0.013223
Benedictine KS	0.006551	Johns Hopkins	0.009890	Central Florida	0.012441
Kansas Wesleyan	0.005917	Texas A&M	0.008446	Mary Hardin-Baylor	0.011884
Ohio State	0.005844	LSU	0.007800	Washington	0.011317
Marian IN	0.005659	Florida	0.007782	Washington St	0.011222
Bethel MN	0.005655	Kentucky	0.007376	Penn State	0.010118
Muhlenberg	0.005540	Texas	0.007278	Auburn	0.009977
Tarleton St	0.005476	Michigan	0.007193	Missouri	0.009722
Ouachita Baptist	0.005418	Syracuse	0.006816	Iowa	0.009648
Georgia	0.005409	Central Florida	0.006538	Northwestern	0.009192
Notre Dame	0.005299	Washington St	0.006380	West Virginia	0.009174
Notre Dame OH	0.005249	Washington	0.006269	Fresno St	0.008901

#### Wt (t=10000)

	*** (1-10000)
Team	
Clemson	0.103882
Alabama	0.057223
Georgia	0.024716
Ohio State	0.024055
Notre Dame	0.023797
Oklahoma	0.020352
Texas A&M	0.017669
LSU	0.016144
Florida	0.016036
North Dakota St	0.015302
Kentucky	0.015276
Texas	0.014817
Michigan	0.014679
Syracuse	0.014091
Central Florida	0.013244
Washington	0.012022
Washington St	0.011908
Penn State	0.010773
Auburn	0.010624
Missouri	0.010359
Iowa	0.010259
Northwestern	0.009784
West Virginia	0.009764
Fresno St	0.009452
South Carolina	0.008896

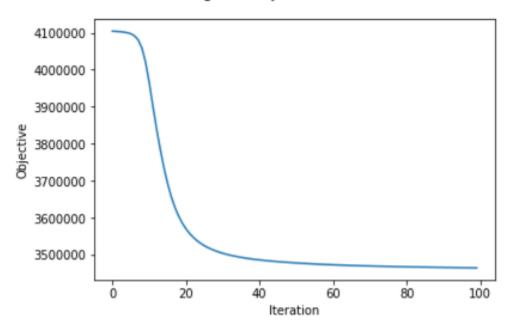
### Problem 1, Part b)

L1 Norm of (Wt - W\_infinity) vs. Iteration #



# Problem 2, Part a)

Divergence Objective vs. Iteration



HW 4 (mc4571)

Please read the table from left to right and then from top to bottom. (First row: Columns 1-5, Second row: 6-10, third row: 11-15, fourth row: 16-20, fifth row: 21-25). Rows 4,5 are on the next page.

editor	0.026291	design 0.007	1829	country	0.023806	president	0.042523	school	0.044942
television	0.022711	color 0.005		american	0.023222	mrs	0.039937	student	0.030702
book	0.018604	small 0.005		states	0.022812	father	0.033405	child	0.022413
article	0.015960	form 0.005		world	0.017048	son	0.027333	class	0.015237
writer	0.012798	large 0.004		economic	0.016926	graduate	0.026868	program	0.014331
write	0.012611	piece 0.004		economy	0.011444	vice	0.025375	education	
page	0.011771	place 0.004		nation	0.011331	director	0.025314	college	0.013114
news	0.010410	paint 0.004		government	0.010619	retire	0.023750	parent	0.012070
publish	0.010052	surface 0.004		foreign	0.009979	executive	0.022407	teacher	0.011676
medium	0.009329	thing 0.004		americans	0.008671	daughter	0.021509	community	
mearan	0.009329	0.004	1502	americans	0.000071	daugiicei	0.021303	Community	0.009370
military	0.017117	computer 0	0.021295	lawyer	0.030207	law	0.014167	mile	0.015940
war	0.016339		.018967	court	0.026295	case	0.012223	car	0.013381
government	0.013436	system 0	.014149	charge	0.023835	decision	0.010341	water	0.011152
american	0.012294	available 0	.012481	case	0.022912	rule	0.010168	travel	0.010977
force	0.011474	technology C	.011303	judge	0.018782	issue	0.009215	hour	0.010469
states	0.011381		.011058	trial	0.017565	public	0.009214	air	0.009582
attack	0.009651	service 0	.010966	prison	0.014294	legal	0.007998	trip	0.009421
official	0.009218	check 0	.010060	prosecutor	0.013554	question	0.007854	train	0.008444
leader	0.008700	company 0	.009735	criminal	0.011224	official	0.006446	fly	0.008184
country	0.008504	internet 0	.009539	state	0.010700	matter	0.006420	road	0.008123
food	0.015697	music C	.017039	health	0.017824	money	0.019122	speak	0.010115
restaurant	0.009754		.013291	drug	0.017040	pay	0.018869	thing	0.009474
serve	0.009249	play 0	.011241	doctor	0.016186	bill	0.017605	ask	0.009444
eat	0.008506	performance 0	.009857	medical	0.014298	budget	0.017079	tell	0.008970
dinner	0.008218	artist 0	.009820	study	0.013253	state	0.016466	black	0.008937
taste	0.008002	dance 0	.007189	patient	0.013105	tax	0.015560	feel	0.008844
red	0.007823		.007109	treatment	0.012216	cut	0.012064	man	0.008637
fresh	0.007350	perform 0	.006858	cause	0.011891	cost	0.010440	question	0.008346
white	0.007272	stage 0	.006797	care	0.010450	program	0.009553	word	0.007710
table	0.007239	present 0	.006789	hospital	0.009783	benefit	0.009415	hear	0.007292
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percent	0.021935	win	0.023778	life	0.013174	official	0.017314	team	0.023674
price	0.020101	second	0.019232	man	0.010831	plan	0.016036	game	0.020619
stock	0.019984	play	0.016075	woman	0.010621	meeting	0.012642	season	0.019015
market	0.017083	game	0.014038	friend	0.009126	meet	0.009824	player	0.018692
bank	0.014226	victory	0.013874	love	0.009015	issue	0.009558	play	0.015691
share	0.013865	score	0.013085	young	0.008762	member	0.008583	coach	0.011433
investor	0.012360	point	0.012631	family	0.008608	agency	0.007283	baseball	0.009154
rate	0.012057	third	0.011894	tell	0.008500	proposal	0.007130	league	0.008502
rise	0.011009	final	0.010063	child	0.008384	effort	0.007106	guy	0.008052
fall	0.010719	lose	0.010055	old	0.007274	problem	0.006927	thing	0.007804
building	0.021991	company	0.044854	police	0.034484	political	0.025748	percent	0.042978
city	0.021524	business	0.020607	officer	0.018331	campaign	0.017281	number	0.022775
house	0.013600	executive	0.017379	man	0.016377	party	0.016236	increase	0.019087
resident	0.012476	industry	0.017088	official	0.015925	election	0.014939	report	0.017880
build	0.012347	sell	0.013767	yesterday	0.013712	leader	0.014487	accord	0.016915
area	0.011924	sale	0.013418	kill	0.012366	vote	0.014466	average	0.011593
home	0.010689	market	0.011927	arrest	0.012011	candidate	0.013593	level	0.011560
street	0.010399	president	0.010614	fire	0.011098	democratic	0.011230	rate	0.011121
live	0.009813	deal	0.010134	car	0.009926	republican	0.010913	low	0.011065
open	0.009539	large	0.009985	night	0.009611	support	0.009870	result	0.010985
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