	CMPEN	**472**								**Homework**		**12**	
	Section:	1			**NAME:**					**Total Score:**		100	
	Comments:												
	Check list:												
		Homework turn-in:					-10						
		Homework file name:					-10						
		Homework file must NOT zipped:					-10						
		Comment section, programmer info and purpose					-10						
		Comment section, program info					-20						
		Parameter declearation section, symbols					-10						
		Data section, address and variables					-20						
		Program section, address					-10						
		Program section, correct starting and ending					-10						
		Program section, comments					-25						
		Subroutine section, correctness					-20						
		Subroutine section, comments					-20						
		Assembly error					-80						
		Runtime error, correct commands, correct output					-50						
			Every 1 second counting up, from 0 to 59 range and repeat										
			Digital clock starts from set time										
			Working calculator										
			Correct Timer Interrupt OC2 Interrupt Service										
			Proper 8KHz (125usec interval) signal sampling										
			Multiple Interrupt sources, proper interrupt handling										
			Correct ADC data, 4 signals (S, Q, T, Mix), no distortion										
			ADC data printing done outside of the interrupt service routine										
		Helpful menu explanation for the users, easy guide					-25						
		No-crash by wrong commands, fool proof					-20						
	Others:												
		Must use Real Time Interrupt for time base					-15						
		Commands: 's' and 'q' working					-15						
		Calculator: correct calculation and answer display					-15						
		Calculator, digital clock, ADC running at same time					-15						
		Error checking for both calculator and clock setting					-15						
		ADC data value printing					-15						
		1024 data points, plots, and explanations					-15						
		Terminal print data capture					-15						
		FFT plots of the 4 signals (S, Q, T, Mix), X axis label					-15						
		Signal frequency: calculations, show with FFT plots					-15						
		Homework 12 report problems					-15						
	Comments:												