

## CPX1 Grading Criteria

### (30 pts) Signal X2

Did they describe analysis approach/ windows used / log vs linear / etc ?  
Is this a ML smear or SLL interference problem? Which window was the best?  
Did they make a time domain plot and try to interpret sinusoids they could see in time domain?  
Did they choose the proper y axis for plot? (linear versus log?)  
Did they get the proper order for zero padding, windowing, and FFT functions?  
How precise was their frequency measurement? Did they zoom into plot for better measurement?  
Did they discuss bias' impact on measurement? What means did they use to minimize the bias impact?  
Did they find the frequencies of the mystery sinusoids?  
Did they measure the relative amplitudes of the mystery sinusoids (in dB)?  
Did they reference the Figures used in the report write-up? have titles on figures? Axis properly labeled on plots?  
Is their x-axis in frequency, not k freq bins?  
How good were their English skills?  
Bonus points for something extra?

### (30 pts) Signal X3

Did they describe analysis approach/ windows used / log vs linear / etc ?  
Is this a ML smear or SLL interference problem? Which window was the best?  
Did they make a time domain plot and try to interpret sinusoids they could see in time domain?  
Did they choose the proper y axis for plot? (linear versus log?)  
Did they get the proper order for zero padding, windowing, and FFT functions?  
How precise was their frequency measurement? Did they zoom into plot for better measurement?  
Did they discuss bias' impact on measurement? What means did they use to minimize the bias impact?  
Did they find the frequencies of the mystery sinusoids?  
Did they measure the relative amplitudes of the mystery sinusoids (in dB)?  
Did they reference the Figures used in the report write-up? have titles on figures? Axis properly labeled on plots?  
Is their x-axis in frequency, not k freq bins?  
How good were their English skills?  
Bonus points for something extra?

### (30 pts) Signal X4

Did they describe analysis approach?  
Did they make a time domain plot and try to interpret the signals they could see in time domain?  
Did they make an overall Frequency Plot, and comment on the signal characteristics?  
Did they estimate the bandwidth of signal (not including the noise), and discuss the frequency range, gaining intuition of what the type of signal might be?  
Did they make an educated guess as to the type of signal?  
Did they zoom the time domain plot's various "parts" to interpret the signals?  
Did they make individual frequency plots of each "part" of the signal?  
And compare each of these parts frequency content?  
Did they discover the content of the signal? (and use a special matlab command to uncover the content? Hint: this command has been used in the example code in class)  
Did they reference the Figures used in the report write-up? have titles on figures? Axis properly labeled on plots?  
Is their x-axis in frequency, not k freq bins?  
How good were their English skills?  
Bonus points for something extra?

### (5 pts) Overall Code quality

(2 pts) header  
(1 pts) comments  
(2 pts) runs without crashing

### (5 pts) Intro/Conclusion