

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