Instructions

This problem set is intended to solidify the concepts you learned about in this week's lectures and readings. Your responses will be worth 5% of your final grade. You are encouraged to work together with your classmates in small groups, and/or to post and answer questions on the course's Canvas site. However, ***you must clearly indicate who your collaborated with and submit your own (uniquely worded) responses***.

We will go over the answers to this problem set in class on **Thursday January 19, 2017 at 10:10am**. You must upload your answers before then in order to receive credit. No late submissions will be accepted.

Note: question 1 asks you to plot ROC curves. If you make those plots by hand (which I recommend, but don't require), you can choose to either take a digital photograph of your work (or scan it in) and embed it in your problem set, or you may instead turn in a paper copy of that question. If you choose to hand in a paper version of Question 1, your reading response and Question 2 must still be uploaded digitally. You should also add a note to your uploaded responses specifying that you will be handing in a paper copy of Question 1.

Readings

1. Please read Chapter 2 of *Foundations of Human Memory*. What were your thoughts on the reading? For example, did you learn something interesting? Were you surprised by something? Do you disagree with the author? Did you think some concept was described especially well (or confusingly)? **(Ungraded)**

Graded questions

1. Suppose the table below contains data you've collected from one participant in a recognition memory experiment. They were tested with 20 items (TRIAL) which included a mix of targets and lures (STATUS). For each item they made a 6-point CONFIDENCE judgement: 1 = sure it was not on the list; 6 = sure it was on the list.

TRIAL	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STATUS	T	L	L	L	L	L	L	L	L	T	T	T	L	T	T	L	T	T	T	L
CONFIDENCE	5	1	2	4	6	3	1	2	1	4	1	5	5	2	3	6	5	3	4	1

   a. Plot the ROC curve for this participant. Be sure to label axes and put numbers on the axes. Show your work! (**1.5 pt**)
   b. Draw (and label) dotted line on the ROC curve to indicate what it would look like for a participant who is completely insensitive to differences between targets and lures (**1 pt**)
   c. Draw another (labeled) dotted line on the ROC curve to indicate what it would look like for a participant who could tell targets and lures apart perfectly (**1 pt**)

2. The Yonelinas familiarity-recollection model and the variable-recollection model each extend strength theory by re-casting unimodal strength-based judgements into separate familiarity and recollection judgements. Come up with an idea for an extension of either the Yonelinas

Familiarity-Recollection model or the Variable-Recollection model. Make arguments for *and* against your proposed change. (**3 paragraphs— description of change: 0.5 pt; argument for: 0.5 pt; argument against: 0.5 pt**).