

**Note:** The exercises below are required as part of Problem Set 1, due on Friday, 09/15/2017.

Your Name Here: \_\_\_\_\_

For each of the six sentences below, please identify the main connective, either by circling it or by writing a unique description (For instance, for the **Example** sentence below you could write “the second conjunction symbol from the left”).

I recommend using the underlining technique I demonstrated in class and which we will apply to the example below in class. But you may use whatever method you wish and do not need to show your work in order to receive full credit.

If you choose to send your answers via e-mail, please write **Written Portion: PS #1** in the subject line of your e-mail and send it to [mark.criley@stanfordalumni.org](mailto:mark.criley@stanfordalumni.org)

**Example:**  $\neg(A \wedge B) \wedge ((A \vee B) \vee C)$

**Find the main connective:**

(a)  $\neg(A \wedge B)$

(b)  $\neg\neg\text{Between}(a,b,e) \vee \text{Between}(c,b,e)$

(c)  $((\text{Large}(a) \wedge \text{Larger}(a,b)) \vee \neg\text{Large}(d)) \vee (\text{SameCol}(b,d) \vee \text{Large}(d))$

(d)  $\neg(\neg\text{Larger}(b,a) \vee \text{SameSize}(d,e))$

(e)  $(\neg A \wedge \neg B) \wedge (A \vee B)$

(f)  $\neg(\text{Larger}(b,a) \vee \text{Cube}(f)) \vee \text{Adjoins}(b,d)$