

GENERAL DIRECTIONS for HOMEWORK

1. Option 1 – do homework by hand

Print lexicon table and fill out by hand.

Do trees by hand [**must be neat and lined up well**] and hand-deliver.

2. Option 2 – use your own software

Use your own tree-writing software, and send by email.

Use the following naming scheme.

595-Homework#5-LastName.doc

3. Option 3 – use supplied software

Do tables using macros in this file; make a copy of this file, fill out tables, and send by email.

Use the following naming scheme.

595-Homework#5-LastName.doc

NOTE 1: This option requires you to download ms doc version of the homework.

NOTE 2: If you use Option 3, go to end of file for critical info.

1. **Part 1 (Lexicon)** - Translate each of the following into expanded (*inflected*) lambda-calculus. [NOTE: types are auto-upper-case; subscripts and math-italic are automatic.]

Morpheme	TYPE	Translation
every		
some		
no		
and		
the		
who		
[copula] be		
respects		
woman		
man		
one		
mother (def)		
father (def)		
brother		
friend		
virtuous		
-ed [passive]		
[mod]		
Jay		
Kay		
nominative		
accusative		
by (bylative)		
's , of [genitive]		
's, of [possessive]		

2. Part 2 (Semantic Trees)

For each of the following sentences, provide a semantic-tree.

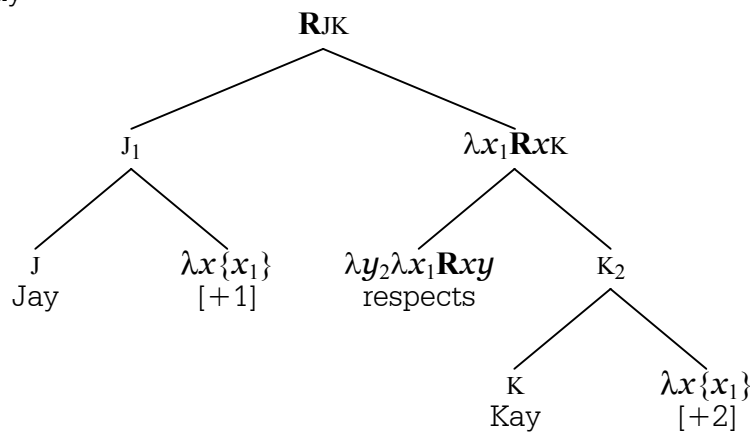
- (1) Construct the most natural tree-structure; every node should be sensible.
 - (2) Assign to each node its translation into the inflected lambda-calculus.
 - (3) Include every morpheme (appropriately spelled) “below” its terminal node.
 - (4) Make sure each composition is consistent with categorial-logic.
1. Every man whose mother respects Kay is some one 's brother.
 2. No friend of Kay respects Kay's mother.
 3. Jay's mother is respected by every woman whom Kay respects.
 4. Jay and Kay respect every man whose mother is virtuous.
 5. Every man who respects every woman is respected by every woman.

3. Extra Credit

Do derivations in categorial logic for several compositions in part 2.

4. Example (standard-tree form)

1. Jay respects Kay



5. Example (table-tree form)

Jay	[+1]	respects	Kay	[+2]
J	$\lambda x\{x_1\}$		K	$\lambda x\{x_2\}$
		$\lambda y_2\lambda x_1Rxy$	K ₂	
J ₁		λx_1RxxK		
RJK				

1. Security Settings

In order to run macros, Word security settings must be set appropriately; follow the following menu selections (Word 2003; may differ in other versions).

Tools > Macros > Security > Medium (or Low)

Close file and re-open; when you open this file, if you chose “medium”, you will be asked whether to allow macros; say ‘yes’.

2. Font

The special characters in this file come from an *embedded font* named ‘!SymbolGMH’, which will automatically install (supposedly!) when you first open this file.

If it doesn't, go the Support Page on my website to download and install this font the usual way.

3. Commands (using functions keys; see next page)

Bold makes current selection **bold**, unless it is empty, in which case it makes character to the left bold.

Small Caps does the same thing except using SMALL CAPS; can be combined with Bold.

Insert/Delete Row/Column – may produce problems when cells are merged; **use caution**.

NEW Table places a new 12 row x 20 column table at the *end* of the document (*otherwise*, it can produce mischief).

- Table cells produced by this command are set up to expand and contract with content.
- Table rows are set up to hang together vertically, so they will move *en masse* to the next page if they don't fit together on the page.
- Table grid lines are set to be invisible; all the cell borders you see print.
- Word Trick – delete-key does not delete rows or columns, but only empties them; use *cut* (Ctrl-X) instead (or use macro provided).

MERGE-Horizontal – select cells to merge. [Places a thick border on top of resulting cell.]

MERGE-Vertical (also horizontal) – select cells to merge. [Does not place a thick border on top of cell.]

SPLIT-Horizontal is not perfect because of stupid Word tricks, so you may have to realign the internal borders to get the vertical-merge to work. This also removes the thick border over cells, so it serves as an UNDO for Merge-Horizontal.

RESET Table resets the cell widths, which is sometimes necessary after Word unilaterally decides to change them itself.

4. Numeric-Subscripts (Automatic)

If you type a numeric-key (not the keypad though), then if you are in a table, the numeral will be automatically subscripted, unless you are in the top row, where you don't need subscripts.

5. Other Shortcuts

CTRL-ALT-P	=	show/hide paragraph marks [paragraph marks are annoying when editing table cells]
CTRL-ALT-G	=	show/hide table grid lines [borders print; grid lines do not]
CTRL-ALT-W	=	toggle width of page-view (in print-layout view); sometimes, hitting twice is useful.
Back-Slash	=	toggle sub-script
Numeric-Slash	=	toggle case
Numeric-Star	=	copy cell to cell below (useful in copy-paste calculations).

6. Function Key Assignments

Print this page and place the following chart over your function keys [in the appropriate sense of ‘over’])

NOTE: C = control-key

	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	
C					insert ROW	DELETE ROW	insert COLUMN	DELETE COLUMN	SPLIT horizontal	RESET table		NEW TABLE	C
	∇	∃	ι	λ	~	→	&	∨	Merge Horizontal	Merge Vertical	SMALL CAPS	BOLD	

(press Ctrl-F12 to start new tree)