

CS 025 -- Recommended order of exercises

To develop language proficiency, I recommend that you tackle the problems in the following order. Generally, this starts with the easiest or most fundamental issues, and progresses to more thought-provoking ones.

From time to time, I will add additional exercises, especially toward the upper end of the spectrum.

<u>PDF name</u>	<u>does what</u>	<u>skills</u>
Input	count words, etc.	file input, tokenizing, convert string to int
Output	print values in column	formatted output
String Input	practice some str func	string functionality
Experiment with Java operators	operators	operators
Loop Call Function	print table of values	simple logic and control
Standard Deviation	calc std deviation	simple calculations
Tokenize Video Length	find total length	tokenizing
Practice 1	short problems	various
Number Bases	convert # to base 2-16	use Java API, simple logic
Alphabet	print the alphabet	manipulate ASCII codes
Letter Frequency	letter frequency!	file input, array
Greek Letter Club	create name of group	random numbers, loops
Quiz	generate a self-test	file input, arrays, strings, loop
Nested Loops	print numbers in "2-d"	nested loops
Java Classes	implement 2 classes	classes and aggregation
Comparators	sort hockey teams	write our own comparators
Sort Names	handle Mc and Mac names	comparators, strings
Recursion	short recursion problems	write recursive functions
Stock	stock market analysis	file I/O, tokenizing, traverse list
Word Games	search for words	Strings, arrays, loops, file input
Number Theory	properties of a number	several functions, loops
Permutations	generate permutations	implement given algorithm; looping
Reverse Lookup	make reverse lookup table	2-d, looping
Conference Location	find ideal lat/lon	read big file, tokenize, 2-d array
Practice 2	challenging problems	various