

Prog1: Positional numbers input and output (CS220-02, 05)

Develop a C (or C++) program that converts a number from a given base between 2 and 36 to another base in the same range. Name your source file "**prog1.c**" or "**prog1.cpp**".

Your program must require a single command line argument, the name of an input file. This input file will consist of any number of lines, each one of three types: comment, blank, or input. Comment lines begin with a '#' and should be ignored (i.e., they should not affect the output). Blank lines should also be ignored and have no characters on them at all other than an immediate newline. Input lines have three numbers separated with a single space between the first and second numbers as well as the second and third. The first and third numbers are decimal numbers indicating the input and out bases, respectively, between 2 and 36. The second number is the input base value to be converted to the output base. The 36 possible coefficients used are '0'-'9' and 'a'-'z' (lowercase). For each input line, you must output the input line number (see example below), one space, and the converted number.

Example input file	Expected output to console
<pre># A comment followed by a blank line 10 139 2 16 a7 10 # another one 2 11 010 110 001 110 101 8 #done</pre>	<pre>1 10001011 2 167 3 326165</pre>

Your output must precisely match the instructor's so test carefully against the attached ZIP of examples.

You can assume I will always test with a properly formatted test file and will always provide the correct command line parameter.