| Problem 3 | Basically It | 3 Points |
|---|---|---|

**Program Name: basic.cpp** **Input File: basic.dat**

The year is 1970 and a new language is needed for computer programming. Your company has decided to create a new programming language called SIMPLE (Symbolic Instructions for Math and other Programming Logic Execution). Your company is implementing this language in multiple releases. Your job is to write the first release as described below. (Fortunately, someone has sent the compiler you are using for this contest through a time machine. Unfortunately, in 1978 a rival language beats your company's marketing strategy and BASIC becomes famous and SIMPLE goes the way of CPM.)

The first release of SIMPLE implements only two instructions as shown in Table 1.

| Instruction | Format | Explanation | Examples |
|---|---|---|---|
| LET <var> = <constant> | LET in columns 1-3.<br>Blanks in columns 4, 6, and 8.<br><var> in column 5.<br>= in column 7.<br><constant> in column 9. | The value <constant> is assigned to <var >. | LET A = 5<br>LET B = 9 |
| LET <var> = <var1> + <var2> | LET in columns 1-3.<br>Blanks in columns 4, 6, 8, 10, and 12.<br><var> in column 5.<br><var1> in column 9.<br><var2> in column 13. | The values of <var1> and <var2> are added and the result is assigned to <var>. | LET C = A + B |
| PRINT <var> | PRINT in columns 1-5.<br>Blank in column 6.<br><var> in column 7. | The value stored in <var> is printed (without a sign character) on a line by itself starting in column 1. | PRINT C |

**Table 1 : Instructions and Formats for SIMPLE Release 1**

A <var> is a single upper-case alphabetic character (A-Z). A <constant> is a single digit integer (0-9) and is never preceded by a sign character. If you work the examples above, you will find that the PRINT C instruction will print 14 as the result.

### Input

Your program will read a series of instructions from the input file. Every instruction will be syntactically correct, on a line by itself, and will be formatted as in Table 1. There will be no extraneous spaces at the end of any statement and no blank lines in the input. PRINT statements will not involve uninitialized variables. Your program will read to the end of the file, parsing and processing the SIMPLE instructions.

### Output

For each line of input, your program is to process the instruction on the line as directed by Table 1. Your program will not produce any output for LET instructions. For each PRINT instruction, your program should print the value of the target variable. Note that the value of the variable of a PRINT statement may be multiple digits in length. All output produced by a PRINT instruction should start in column 1 of the output line and contain no leading zeroes.

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**PROBLEM 3 CONTINUED**

**Example: Input file**

```
LET A = 5
LET B = 9
LET M = A + A
PRINT A
PRINT M
LET D = M + B
PRINT D
```

**Output to screen**

```
5
10
19
```