Programmer Recruit Test

In this test you will be required to write an Interpreter for a simple programming language called **ALPL**.
The interpreter should be written in ***python***, you can use any library/module that you want. The interpreter input is a text file containing the **ALPL** program.

Here is a description and rules of the language:

- The language only deals with positive or negative integer numbers
- There are ten registers numbered R0 - R9, each register can hold an integer number
- All the language tokens are in UPPERCASE
- Each line includes exactly one command or label, there are no multiline commands
- A label is an alphanumeric token followed by a colon (the token can't be a command or a register name)
- When the program reaches the end of file it is ended
- List of commands:

Name	Syntax	Description	Example
LET	LET Rx := EXPRESSION[1]	Set a register to hold an expression result.	LET R4 := R5 * 12
IF	IF Rx OPERATOR[2] Ry LABEL	Compare between two registers, If the expression is true jump to LABEL otherwise continue	IF R2 < R5 LABEL0
JUMP	JUMP LABEL	Jump to a label (no return)	JUMP LABEL12
CALL	CALL LABEL	Call to a label, same as JUMP but can return	CALL DIV0
RETURN	RETURN	Return to the line after the last call	RETURN
PRINT	PRINT Rx	Print the value of a register	PRINT R7

1: The LET expression is composed of:

- Left operand : register or integer
- Operator : + or * (plus or multiply) - optional
- Right operand: register or integer - required if operator exists

2: The IF operator can be : =, <, > (equal to, less than, greater than)

Example program (count to 10):

```
LET R0 := 0
LET R1 := 10
LOOP:
IF R0 = R1 END
LET R0 := R0 + 1
JUMP LOOP
END:
```

Example program (print 2020):

```
LET R5 := 2020
CALL PRINTR5
JUMP END
PRINTR5:
PRINT R5
RETURN
END:
```