```c
#include <stdio.h>

// We maintain an array which behaves like a stack
// (see Monday Question 1 p1v1d1)
// to keep track of the symbols and digits
// These are global variables - visible to all clones of Mr C
const int MAX = 100;
int stack[MAX], top = -1;

void print(){
    int i;
    for(i = 0; i <= top; i++){
        printf("%d", stack[i]);
        if(i < top)
            printf(" "); // No trailing spaces
    }
    printf("\n");
}

int isDigit(char c){
    return c >= '0' && c <= '9';
}

void push(int n){
    if(top == MAX - 1)
        printf("OVERFLOW\n");
    stack[++top] = n;
}

int pop(){
    if(top < 0)
        printf("UNDERFLOW\n");
    return stack[top--];
}

int main(){

    char ch;
    int a, b;

    ch = getchar();

    while(1){
        if(isDigit(ch)){
            push(ch - '0');
            print();
            getchar(); // get the space
        }
        if(ch == '+'){
            a = pop();
            b = pop();
            push(a + b);
            print();
            getchar(); // get the space
        }
        if(ch == '*'){
            a = pop();
            b = pop();
            push(a * b);
            print();
            getchar(); // get the space
        }
        if(ch == '#'){ // No more instructions
            if(top == 0) // Only one element left in the stack
                printf("%d",stack[top]);
            else
                printf("ERROR");
            return 0;
        }
```

```
        ch = getchar(); // get the next instruction
    }
    return 0;
}
```