

# Postfix expression

Sunday, 10 March 2024 2:38 pm

```
#include <stdio.h>
#include <stdlib.h>
#include <ctype.h>

#define MAX_SIZE 100

int evaluatePostfix(char* exp) {
    int stack[MAX_SIZE];
    int top = -1;

    for (int i = 0; exp[i]; ++i) {
        if (isdigit(exp[i])) {
            stack[++top] = exp[i] - '0';
        } else {
            int operand2 = stack[top--];
            int operand1 = stack[top--];

            switch(exp[i]) {
                case '+':
                    stack[++top] = operand1 + operand2;
                    break;
                case '-':
                    stack[++top] = operand1 - operand2;
                    break;
                case '*':
                    stack[++top] = operand1 * operand2;
                    break;
                case '/':
                    stack[++top] = operand1 / operand2;
                    break;
                default:
                    printf("Invalid expression\n");
                    exit(EXIT_FAILURE);
            }
        }
    }

    return stack[top];
}

int main() {
    printf("name=kongara sai\nreg no=192365025\n");

    char exp[] = "82/3*";
    printf("Result: %d\n", evaluatePostfix(exp));
    return 0;
}
```

}

```
name=kongara sai  
reg no=192365025  
Result: 12
```

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