**Write a C program to evaluate Arithmetic expression using stack.**

**Algorithm:**

Code:

#include <ctype.h>

#define MAX\_SIZE 100

char stack[MAX\_SIZE];

int top = -1;

void push(char value) {

stack[++top] = value;

}

char pop() {

return stack[top--];

}

int precedence(char op) {

switch(op) {

case '+':

case '-':

return 1;

case '\*':

case '/':

return 2;

default:

return 0;

}

}

void infixToPostfix(char \*infix, char \*postfix) {

int i, j;

for (i = 0, j = 0; infix[i] != '\0'; i++) {

if (isalnum(infix[i])) {

postfix[j++] = infix[i];

} else if (infix[i] == '(') {

push(infix[i]);

} else if (infix[i] == ')') {

while (stack[top] != '(') {

postfix[j++] = pop();

}

pop(); // Discard '('

} else {

while (top != -1 && precedence(stack[top]) >= precedence(infix[i])) {

postfix[j++] = pop();

}

push(infix[i]);

}

}

while (top != -1) {

postfix[j++] = pop();

}

postfix[j] = '\0';

}

**INPUT:**

**5 3 + 4 \* 6 2 / -**

**OUTPUT:**

**Result : 32**