```
#include <stdio.h>
#include <ctype.h>
const int max = 100;
char stack[100];
int top = -1;
void push(char op) {
    if (top < max - 1) {
        top++;
        stack[top] = op;
char pop() {
    if (top != -1) {
        char c = stack[top];
        top--;
        return c;
    return '\0';
char peek() {
    if (top != -1) {
        return stack[top];
    return '\0';
int precedence(char op) {
   switch (op) {
        case '+':
        case '-':
            return 1;
        case '/':
            return 2;
        case '^':
            return 3;
        default:
            return 0;
```

```
int is_operator(char c) {
    return (c == '+' || c == '-' || c == '*' || c == '/' || c == '^');
int main() {
    char infix[max];
    printf("Enter infix expression: ");
    fgets(infix, max, stdin);
    int i = 0;
    while (infix[i])
        if (isalnum(infix[i]))
            printf("%c", infix[i]);
        else if (infix[i] == '(')
            push(infix[i]);
        else if (infix[i] == ')')
            while (top != -1 && peek() != '(')
                printf("%c", pop());
            pop();
        else if (is_operator(infix[i]))
            while (top != -1 && precedence(peek()) >= precedence(infix[i]))
                if (infix[i] == '^' && peek() == '^')
                    break;
                printf("%c", pop());
            push(infix[i]);
        i++;
```

```
while (top != -1) {
     printf("%c", pop());
}
printf("\n");
return 0;
}
```

```
sammj@SAM_LAPTOP MINGW64 ~/DS LAB
$ /usr/bin/env c:\\Users\\sammj\\.vscode\\extensions\\ms-vscode.cpptool
soft-MIEngine-In-xaziu2lt.444 --stdout=Microsoft-MIEngine-Out-142wethg.1
ich1vbhc.zyi --dbgExe=C:\\msys64\\ucrt64\\bin\\gdb.exe --interpreter=mi
Enter infix expression: (a+b*(a-c)*c)
abac-*c*+
```

```
DINFIX TO POSTFIX
  Hundlede (stelio h)
  # undude (chife. 4>
  int max = (00)
  ther shock [100];
  unt top = -1;
 void fush (char of)
     y (of < 100 max -1)
     top = top +1;
       Stack [tof] = of;
      else
      Staffentf (" Stack Overflowed);
char pop ()
    # if ( top! = -1)
         Ret ge - retrus
          char c = stack [top];
          top = top - 1
         return (c)
      else
       3 fruits ("Stack underflow ");
```

		PAGE:
	clear Leed'()	
	char feek ()	Carmilli Paparita
	y (top! = -1)	CA ALL MAINE
	1	m and la
	Rehira stack [tof];	(20) 4531 7837
	3	1 31 40
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	sehan !;	
-	case '*':	0 404 0000
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	cast '1':	
1	Rehan 3)	September 18412
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		100010
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		3

```
PAGE:
void main ()
   char infin [man]
    fruit (" Fuhr vifin enfression");
    gets ( oh infix);
    unt i=0;
     While ( right [i])
         if ( is abrum ( wifin [i]))
             fruit ("1.c", infin [13);
        else if ( vigin [i] = = '(')
            push (infix [i]);
         elk y (wifin [i] == ')')
             while (( Hop! = -1) & & ( peck() ! = '(')
             g fruit ("1.1", pop());
         辈 pop();
       else ig (( cufin [i] == '+') | | ( cufin [i] == '-1') | | ( cufin [i]='>) | | ( cufin [i] == 'x') ) |
           While (top! = - 1) & & (precedence (pecks)) > & frecedence (
               puts (" 1.c", 6060);
            y ((fof 1 = -1) & ( frecedence (pak(1) == precedence (uipix [i]))

2 (uipix [i] [= 1)
```

PAGE _____ fradfer der, sofe); fush (rujen [i]): 5 i ++ ; white (top ! =1) g fruits ("+.c", top ()); luffed: Bute infin Enfrusion: a+b+c xd 1 - (a-6) abc rd/ 1 + +ab - -