

Date	
Page	

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Enter an expression: $a*b+c*d-e$
 $ab*cd*+e-$

✓ 300 2500
Op 800 2000


```
code: #include <stdio.h>
#include <ctype.h>
#include <string.h>
```

```
#define N 100
char stack[N];
```

```
int top = -1;
```

```
void push(char ch) {
    stack[++top] = ch;
```

```
char pop() {
    return stack[top--];
}
```

```
int getPriority(char op) {
    switch (op) {
```

```
case '+': return 1;
```

```
case '-': return 1;
```

```
case '*':
```

```
case '/': return 2;
```

```
case '^': return 3;
```

```
default: return 0;
```

```
void itp(char str[]) {
```

```
    for (int i = 0; str[i] != '\0'; i++)
```

```
        char ch = str[i];
```

```
        if (ch == '(' || ch == '[' || ch == '{') {
```

```
            push(ch);
```

```
            printf("%c", ch);
```

```
        } else if (ch == ')') {
```

```
            pop();
```

```
        } else if (ch == ' ') {
```



```
while ( top != -1 && stack[top] != '\0') {  
    printf("%c", pop());  
    pop();  
}  
else {  
    while ( top != -1 && getPriority(ch) <= getPriority(  
        stack[top])  
        printf("%c", pop());  
    push(ch);  
}  
}
```

```
while ( top != -1) {  
    if (stack[top] != '(')  
        printf("%c", pop());  
    else  
        pop();  
}
```

```
int main () {  
    char exp[50]  
    printf("Enter an expression:");  
    scanf ("%s", exp);  
    itp(exp);  
    return 0;  
}
```

0/P.fern