

```
#include <iostream>
```

```
#include <stack>
```

```
#include <string>
```

```
#include <cctype>
```

```
using namespace std;
```

```
// Function to return precedence of operators
```

```
int precedence(char op) {
```

```
    switch (op) {
```

```
        case '+':
```

```
        case '-':
```

```
            return 1;
```

```
        case '*':
```

```
        case '/':
```

```
            return 2;
```

```
        default:
```

```
            return 0;
```

```
    }
```

```
}
```

```
// Function to check if the character is an operator
```

```
bool isOperator(char c) {
```

```
    return c == '+' || c == '-' || c == '*' || c == '/';
```

```
}
```

```
// Function to convert infix expression to postfix expression
```

```
string infixToPostfix(const string& infix) {
```

```
    stack<char> s;
```

```
    string postfix = "";
```

```
    for (char c : infix) {
```

```

    if (isalnum(c)) {
        postfix += c;
    } else if (c == '(') {
        s.push(c);
    } else if (c == ')') {
        while (!s.empty() && s.top() != '(') {
            postfix += s.top();
            s.pop();
        }
        if (!s.empty()) {
            s.pop();
        }
    } else if (isOperator(c)) {
        while (!s.empty() && precedence(s.top()) >= precedence(c)) {
            postfix += s.top();
            s.pop();
        }
        s.push(c);
    }
}

while (!s.empty()) {
    postfix += s.top();
    s.pop();
}

return postfix;
}

```

// Function to evaluate postfix expression

```

int evaluatePostfix(const string& postfix) {
    stack<int> s;

```

```

for (char c : postfix) {
    if (isdigit(c)) {
        s.push(c - '0');
    } else if (isOperator(c)) {
        int val2 = s.top();
        s.pop();
        int val1 = s.top();
        s.pop();

        switch (c) {
            case '+':
                s.push(val1 + val2);
                break;
            case '-':
                s.push(val1 - val2);
                break;
            case '*':
                s.push(val1 * val2);
                break;
            case '/':
                s.push(val1 / val2);
                break;
        }
    }
}

return s.top();
}

```

```

int main() {
    string infix;

```

```
cout << "Enter an infix expression: ";  
cin >> infix;  
  
string postfix = infixToPostfix(infix);  
cout << "Postfix expression: " << postfix << endl;  
  
int result = evaluatePostfix(postfix);  
cout << "Result of evaluation: " << result << endl;  
  
return 0;  
}
```