

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

```
char infix[100];
```

```
char postfix[100];
```

```
char stack[100];
```

```
int top = 0;
```

```
int F(char a){
```

```
    switch(a){
```

```
        case '(':
```

```
            return 0;
```

```
        case '+':
```

```
        case '-':
```

```
            return 2;
```

```
        case '*':
```

```
        case '/':
```

```
            return 4;
```

```
        case '$':
```

```
        case '^':
```

```
            return 5;
```

```
        case '#':
```

```
            return -1;
```

```
        default:
```

```
            return 3;
```

```
    }
```

```
    return -2;
```

```
}
```

```
int G(char b){
```

```
    switch(b){
```

```
        case '(':
```

```
            return 9;
```

```
        case '+':
```

```
        case '-':
```

```
            return 1;
```

```
        case '*':
```

```
        case '/':
```

```
            return 3;
```

```
        case '$':
```

```
        case '^':
```

```
            return 5;
```

```

    case ')':
        return 0;
    default:
        return 7;
}
return -2;
}

```

```

void convert() {

```

```

    int i, j = 0;
    stack[top++] = '#';
    for (i = 0; infix[i] != '\0'; i++) {
        while (F(stack[top-1]) > G(infix[i])) {
            postfix[j++] = stack[--top];
        }
        if (F(stack[top-1]) != G(infix[i])) {
            stack[top++] = infix[i];
        } else {
            top--;
        }
    }
    while (stack[top-1] != '#') {
        postfix[j++] = stack[--top];
    }
    postfix[j] = '\0';
}

```

```

int main() {
    gets(infix);
    convert();
    printf("%s", postfix);
    return 0;
}

```