

1b ds

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#include<stdio.h>
#include<string.h>
#include<conio.h>
#include<ctype.h>
char stack[50];
int top= -1;
void push(char x)
{
    stack[++top]=x;
}
int pop()
{
    return(stack[top--]);
}
int prior(char x)
{
    int p;
    if(x=='(' || x=='#') p=1;
    if(x=='+' || x=='-') p=2;
    if(x=='*' || x=='/') p=3;
    if(x=='^' || x=='$') p=4;
    return p;
}
int main()
{
    char infix[20], postfix[20];
    int i,j=0;
```

```

printf("Enter an infix expression:\n");
gets(infix);
push('#');
for(i=0;i<strlen(infix);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();
}
else
{
while(prior(stack[top])>= prior(infix[i]))
postfix[j++]=pop();
push(infix[i]);
}
}
while(stack[top]!='#')
postfix[j++]=pop();
postfix[j]='\0';
printf("\nPostfix expression is:\n");
puts(postfix);
return 0;
}

```