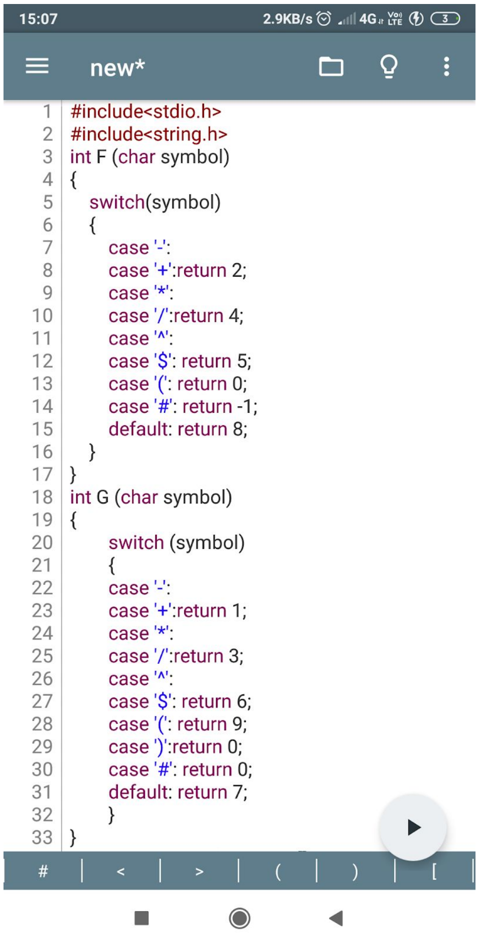
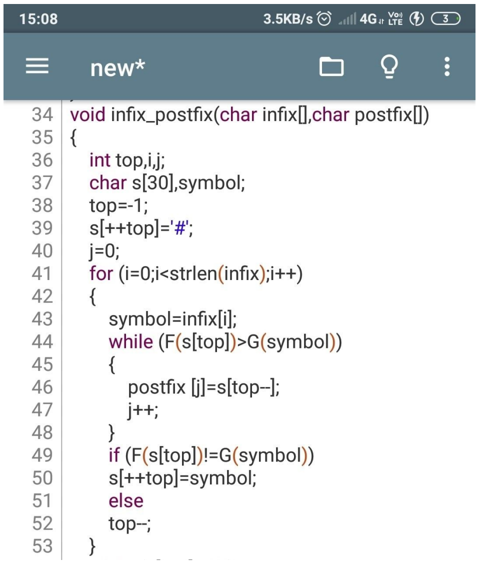
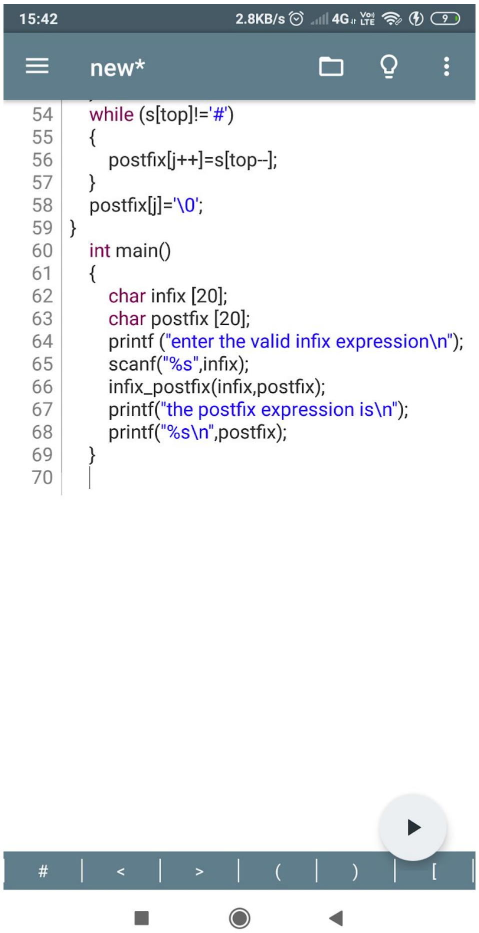


```
#include<stdio.h>
#include<string.h>
int F (char symbol)
{
    switch(symbol)
    {
        case '-':
        case '+':return 2;
        case '*':
        case '/':return 4;
        case '^':
        case '$': return 5;
        case '(': return 0;
        case '#': return -1;
        default: return 8;
    }
}
int G (char symbol)
{
        switch (symbol)
        {
        case '-':
        case '+':return 1;
        case '*':
        case '/':return 3;
        case '^':
        case '$': return 6;
        case '(': return 9;
        case ')':return 0;
        case '#': return 0;
        default: return 7;
        }
}
```

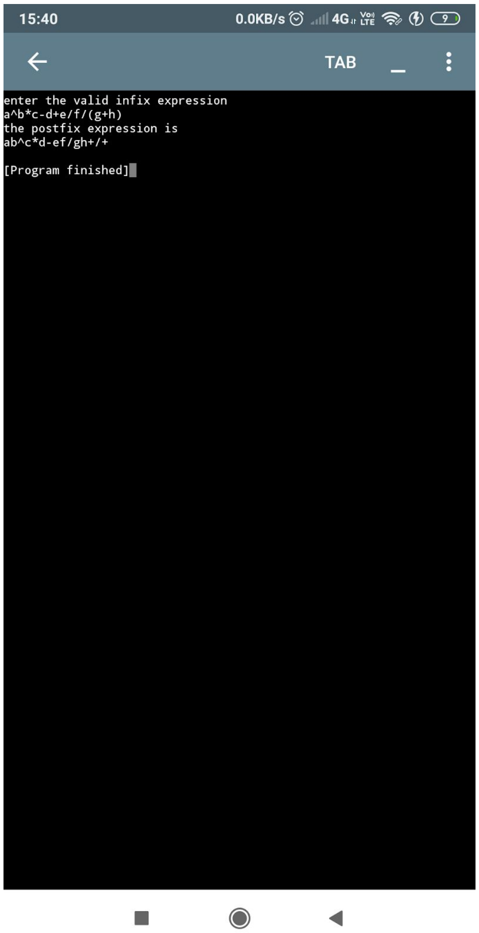


```
void infix_postfix(char infix[],char postfix[])
{
    int top,i,j;
    char s[30],symbol;
    top=-1;
    s[++top]='#';
    j=0;
    for (i=0;i<strlen(infix);i++)
    {
        symbol=infix[i];
        while (F(s[top])>G(symbol))
        {
            postfix [j]=s[top--];
            j++;
        }
        if (F(s[top])!=G(symbol))
        s[++top]=symbol;
        else
        top--;
    }
```



```
    while (s[top]!='#')
    {
       postfix[j++]=s[top--];
    }
    postfix[j]='\0';
}
    int main()
    {
       char infix [20];
       char postfix [20];
       printf ("enter the valid infix expression\n");
       scanf("%s",infix);
       infix_postfix(infix,postfix);
       printf("the postfix expression is\n");
       printf("%s\n",postfix);
    }
```

Output:



```
enter the valid infix expression
a^b*c-d+e/f/(g+h)
the postfix expression is
ab^c*d-ef/gh+/+

[Program finished]
```

: