

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

```
#define MAX 100
```

```
float stack[MAX];
int pos=-1;
```

```
void push ( float data )
```

```
{
if ( pos == MAX - 1 )
{
    printf ( "\nStack OVERFLOW" );
    exit(0);
}
else
{
    pos++ ;
    stack[ pos ] = data ;
}
}
```

```
float pop( )
```

```
{
float data ;

if ( pos == -1 )
{
    printf ( "\nStack UNDERFLOW" );
    exit(0);
}
else
{
    data = stack[ pos ];
    pos-- ;
    return data;
}
}
```

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```
void main( )
```

```
{
```

```
char poststr[100];
int length,i;
float data,data1,data2;
```

```
printf("Enter postfix expression: ");
scanf("%s",poststr);
```

```
length=strlen(poststr);
```

```
for(i=0;i<length;i++)
```

```
{
```

```
if (isdigit(poststr[i]))
```

```
{
```

```
char c;
c=poststr[i];
data=atof(&c);
push(data);
```

-OR-
push(poststr[i]-'0');

```
}
```

```
else
```

```
{
```

```
data2=pop(); /*First POP is the second data*/
data1=pop(); /*Second POP is first operand*/
```

```
if (poststr[i]=='+') push(data1+data2);
else if (poststr[i]=='-') push(data1-data2);
else if (poststr[i]=='*') push(data1*data2);
else if (poststr[i]=='/') push(data1/data2);
else {printf("Invalid operator... exiting.... \n");exit(0);}
```

```
}
```

```
}
```

```
data=pop();
```

```
printf("The Answer of %s = %f\n",poststr,data);
```

```
}
```

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