//Program to Evaluate Prefix Expression

#include<stdio.h>

#include<string.h>

int s[50];

int top=0;

void push(int ch);

int pop();

int main()

{

int a,b,c,i;

char prefix[50];

printf("\nEnter the prefix string in figures(1 digit nos):");

gets(prefix);

//for(i=0;i<strlen(prefix);i++)

for(i=strlen(prefix)-1;i>=0;i--)

{

if(prefix[i]=='+')

{

c=pop()+pop();

push(c);

}

else if(prefix[i]=='-')

{

a=pop();

b=pop();

c=b-a;

push(c);

}

else if(prefix[i]=='\*')

{ a=pop();

b=pop();

c=b\*a;

push(c);

}

else if(prefix[i]=='/')

{

a=pop();

b=pop();

c=b/a;

push(c);

}

else

{

push(prefix[i]-48);

//printf("\n INT=%d - CHAR=%d",prefix[i]-48,c);

}

}

printf("\nFinal ans = %d",pop());

getch();

return 0;

}

void push(int ch)

{

top++;

s[top]=ch;

}

int pop()

{

int ch;

ch=s[top];

top=top-1;

return(ch);

}