def priority(n):

if n=='+' or n=='-':

return 1

if n=='\*' or n=='/':

return 2

def push\_stack(stack, item):

stack.append(item)

def pop\_stack(stack):

del stack[len(stack)-1]

def stack\_top(stack):

return stack[len(stack)-1]

def infixToPostfix(infix):

stack=[]

postfix=''

tmp=''

for s in infix:

if s=='(':

push\_stack(stack,s)

if ord(s)>=48 and ord(s)<=57:

tmp=tmp+s

else:

postfix=postfix+tmp+' '

tmp=''

if s=='+' or s=='-' or s=='\*' or s=='/':

#postfix=postfix+tmp+' '

#tmp=''

while(len(stack)>0 and priority(s)<=priority(stack\_top(stack))):

postfix=postfix+stack\_top(stack)+' '

pop\_stack(stack)

push\_stack(stack,s)

if s==')':

while(stack\_top(stack)<>'('):

postfix=postfix+stack\_top(stack)+' '

pop\_stack(stack)

pop\_stack(stack)

if tmp<>'': postfix=postfix+tmp+' '

while (len(stack)>0):

postfix=postfix+stack\_top(stack)+' '

pop\_stack(stack)

return postfix

def result(postfix):

stack=[]

tmp=''

for s in postfix:

if ord(s)>=48 and ord(s)<=57:

tmp=tmp+s

if s==' ' and tmp<>' ' and tmp<>'':

#if s<>'+' and s<>'-' and s<>'\*' and s<>'/' and tmp<>' ':

push\_stack(stack,tmp)

tmp=''

if s=='+':

x=float(stack\_top(stack))

pop\_stack(stack)

y=float(stack\_top(stack))

pop\_stack(stack)

push\_stack(stack,x+y)

if s=='-':

x=float(stack\_top(stack))

pop\_stack(stack)

y=float(stack\_top(stack))

pop\_stack(stack)

push\_stack(stack,y-x)

if s=='\*':

x=float(stack\_top(stack))

pop\_stack(stack)

y=float(stack\_top(stack))

pop\_stack(stack)

push\_stack(stack,x\*y)

if s=='/':

x=float(stack\_top(stack))

pop\_stack(stack)

y=float(stack\_top(stack))

pop\_stack(stack)

if x==0.0:

return 'error'

else:

push\_stack(stack,y/x)

return stack\_top(stack)

# main

infix='(120+5)/5-20/10+10\*2'

postfix =infixToPostfix(infix)

#print postfix

res=result(postfix)

if res<>'error':

if int(res)==res:

res=int(res)

print res