Submitted Files

Results

Code



▼ hw.c L Download

```
#include<stdio.h>
1
2
    #include<stdlib.h>
3
   #include<math.h>
   #include<limits.h>
4
   #define MAX 100
5
   int op(int a,int b,int o){
6
7
   switch(o){
8
   case-1:return a-b;
9
   case-2:return a+b;
10 case-3:return a*b;
11
   case-4:return a/b;
   case-5:return pow(a,b);
12
13
   default:return 0;
14
   }
15
16 int pre(int o){
17
   if(o==-5)return 3;
   if(o==-3||o==-4)return 2;
18
19
   if(o==-1||o==-2)return 1;
20
   return 0;
21
22
   int ra(int o){
23
   return o==-5;
24
25
   int ev(int ex[],int n){
   int v[MAX],p[MAX],vt=-1,pt=-1;
26
27
   for(int i=0; i< n; i++){
28
   if(ex[i]>=0){
29
   v[++vt]=ex[i];
30
31 | else if(ex[i]==-6){
32
   p[++pt]=-6;
33
34
   else if(ex[i]==-7){
35
   while(p[pt]!=-6){
36
   int b=v[vt--];
37
   int a=v[vt--];
38
   int o=p[pt--];
39
    v[++vt]=op(a,b,o);
40
   }
41
   pt--;
42
    }
43
   else{
    while(pt!=-1\&&p[pt]!=-6\&&(pre(p[pt])>pre(ex[i])||
44
    (pre(p[pt])==pre(ex[i])&&!ra(ex[i])))){
45
   int b=v[vt--];
46
   int a=v[vt--];
47
   int o=p[pt--];
48
   v[++vt]=op(a,b,o);
```

9

```
49
    }
50
    p[++pt]=ex[i];
51
52
53
    while(pt!=-1){
   int b=v[vt--];
54
55
    int a=v[vt--];
    int o=p[pt--];
56
57
    v[++vt]=op(a,b,o);
58
59
    return v[vt];
60
61
    int mcm(int a[],int n){
    int**dp=(int**)malloc(n*sizeof(int*));
62
    for(int i=0;i<n;i++){</pre>
63
    dp[i]=(int*)malloc(n*sizeof(int));
64
    for(int j=0;j< n;j++)dp[i][j]=0;
65
66
    for(int l=2;l< n;l++){}
67
68
    for(int i=1;i<n-l+1;i++){
    int j=i+l-1;
69
    dp[i][j]=INT_MAX;
70
71
    for(int k=i;k< j;k++){
72
    int c=dp[i][k]+dp[k+1][j]+a[i-1]*a[k]*a[j];
73
    if(c<dp[i][j])dp[i][j]=c;
74
    }
75
    }
76
77
    int r=dp[1][n-1];
    for(int i=0;i<n;i++)free(dp[i]);</pre>
78
79
    free(dp);
    return r;
80
81
    }
82
    int main(){
83
    int o;
    if(scanf("%d",&o)!=1)return 1;
84
85
    if(o==0){
86
    int n;
    if(scanf("%d",&n)!=1||n<=0)return 1;
87
88
    int ex[n];
89
    for(int i=0;i<n;i++){
    if(scanf("%d",&ex[i])!=1)return 1;
90
91
92
    printf("%d",ev(ex,n));
93
94
    else if(o==1){
95
    int n;
    if(scanf("%d",&n)!=1||n<=1)return 1;
96
97
    int a[n];
    for(int i=0;i<n;i++){</pre>
98
    if(scanf("%d",&a[i])!=1)return 1;
99
100
    }
```

```
101  printf("%d",mcm(a,n));
102  }
103  return 0;
104  }
105
```

PS1 Ungraded

Student

JIYANSHU DHAKA

Total Points

- / 100 pts

Autograder Score

- / 100.0

Passed Tests

Test 1 (10/10)

Test 2 (10/10)

Test 3 (10/10)

Test 4 (10/10)