

Results: Matrix Chain Multiplication

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C Online Compiler

main.c

Run

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```
1 #include <stdio.h>
2 #include <limits.h>
3
4 #define MAX 100
5
6 // Function to print optimal parenthesization
7 void printOptimalParens(int s[MAX][MAX], int i, int j) {
8     if (i == j)
9         printf("A%d", i);
10    else {
11        printf("(");
12        printOptimalParens(s, i, s[i][j]);
13        printOptimalParens(s, s[i][j] + 1, j);
14        printf(")");
15    }
16 }
17
```

Output

Enter number of matrices: 4
Enter the dimensions (total 5 numbers):
p[0] = 10
p[1] = 20
p[2] = 30
p[3] = 40
p[4] = 50

Minimum number of multiplications: 38000
Optimal Parenthesization: (((A1A2)A3)A4)

Cost Table m[i][j]:

0	6000	18000	38000
-	0	24000	64000
-	-	0	60000
-	-	-	0