

C:\Users\YangYiShu\Desktop> lab > lab 10 > lab10\_dc128280\_yangyishu.java > tb > main(String[])

```
1 import java.lang.*;
2 class tb{
3     Node root;
4     //represent the nodes of tree
5     public static class Node
6     {
7         String data;
8         Node left, right;
9         Node(String d)
10        {data = d;
11        left = null;
12        right = null;
13        }
14    }
15    private static int TowardsInteger(String s)
16    {
17        int num = 0;
18        // Generate if not negative
19        // usual number
20        if (s.charAt(index: 0) != '-')
21            for(int i = 0; i < s.length(); i++)
22                num = num * 10 + ((int)s.charAt(i) - 48);
23        // If it is negative, calculate the +ve number
24        else
25        {
26            for(int i = 1; i < s.length(); i++)
27                num = num * 10 + ((int)(s.charAt(i)) - 48);
28            num = num * -1;
29        }
30        return num;
31    }
32    //recursively evaluate it
33    public static int evaluate(Node root)
34    {
35        // Empty tree
36        if (root == null)
37            return 0;
38        // Leaf node
39        if (root.left == null && root.right == null)
40            return TowardsInteger(root.data);
41        //Evaluate left subtree
42        int left = evaluate(root.left);
43        //Evaluate right subtree
44        int right = evaluate(root.right);
45        //which operator to apply
46        if (root.data.equals(anObject: "+"))
47            return left + right;
48        if (root.data.equals(anObject: "-"))
49            return left - right;
50        if (root.data.equals(anObject: "*"))
51            return left * right;
52        return left / right;
53    }
54    public static void main(String[] args)
55    {
56        //sample tree 5*(-4)+(100-20)
57        System.out.println(x: "Expression:5*(-4)+(100-20):");
58        System.out.println(x: "Answer is:");
59        //60//
60        Node root = new Node(d: "+");
61        root.left = new Node(d: "*");
62        root.left.left = new Node(d: "5");
63        root.left.right = new Node(d: "-4");
64        root.right = new Node(d: "-");
65        root.right.left = new Node(d: "100");
66        root.right.right = new Node(d: "20");
67        System.out.println(evaluate(root));
68        root = null;
69    }
70 }
```

问题 1 输出 调试控制台 终端

Run tb

Windows PowerShell  
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安装最新的 PowerShell, 了解新功能和改进! <https://aka.ms/PSWindows>

```
PS C:\Users\YangYiShu> & "C:\Program Files\Java\jdk-17.0.4\bin\java.exe" "-xx:ShowCodeDetailsInExceptionMessages" "-cp" "C:\Users\YangYiShu\AppData\Local\Temp\vscode\3f979\jdt_ws\jdt.ls-java-project\bin\tb"
Expression:5*(-4)+(100-20):
Answer is:
60
PS C:\Users\YangYiShu>
```