

牛客网-华为机试练习题 108

题目描述

•计算一个数字的立方根，不使用库函数

详细描述：

•接口说明

原型：

```
public static double getCubeRoot(double input)
```

输入:double 待求解参数

返回值:double 输入参数的立方根，保留一位小数

输入描述:

待求解参数 double类型

输出描述:

输入参数的立方根 也是double类型

示例1

输入

216

输出

6.0

解决代码:

```
import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;
import java.math.RoundingMode;
import java.text.DecimalFormat;
import java.text.NumberFormat;

public class Main {
    public static boolean isTest = false;

    public static void main(String [] args) throws IOException{
        if(isTest) {
            new Main().test();
        } else {
            BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
            String str = null;
            do {
```

```

        str = br.readLine();
        if(str != null) {
            double d = new Main().run(str);
            String tempD = Double.toString(d);
            tempD = tempD.substring(0, 4);
            int last = Integer.parseInt(tempD.substring(3, 4));
            if(last >= 5) {
                d += 0.1;
            }
            tempD = Double.toString(d);
            tempD = tempD.substring(0, 3);
            System.out.println(tempD);
        }
    } while (str != null);
}

public double run(String str) {
    double num = Double.parseDouble(str);
    double dis = 1.0;
    double start = 0.1;
    for(double i=0.1; dis > 0.0; i+=0.01) {
        double temp = i*i*i;
        dis = num-temp;
        start = i;
    }
    return start;
}

public void test() {
    String test = "11";
    double d = new Main().run(test);
    String tempD = Double.toString(d);
    tempD = tempD.substring(0, 4);
    int last = Integer.parseInt(tempD.substring(3, 4));
    if(last >= 5) {
        d += 0.1;
    }
    tempD = Double.toString(d);
    tempD = tempD.substring(0, 3);
    System.out.println(tempD);
}
}

```