

```

1  /** File Name: MathFunctions.java
2      *
3      * This demos the math functions that are a part of APCS A.
4      *
5      * @author: Mr. Dagler
6      */
7
8  import java.lang.Math;
9
10 public class MathFunctions
11 {
12     public static void main(String[] args)
13     {
14         int a;
15         double x;
16
17         // Setting a to a random integer from [-25,-1] and x to a random number
18         // from (-100,0].
19         a = -1*(int) (Math.random()*25+1);
20         x = -1*Math.random()*100;
21         System.out.println("|" + a + "|" + " = " + Math.abs(a));
22         System.out.println("|" + x + "|" + " = " + Math.abs(x));
23
24         a = (int) (Math.random()*5+1);
25         x = Math.random()*12;
26         System.out.println(a + "^3 = " + Math.pow(a,3));
27         System.out.println(x + "^2 = " + Math.pow(x,2));
28
29         a = (int) (Math.random()*100+1);
30         x = Math.random()*120;
31         System.out.println("sqrt(" + a + ") = " + Math.sqrt(a));
32         System.out.println("sqrt(" + x + ") = " + Math.sqrt(x));
33     }
34 }
35

```