

Java Program To Check Armstrong Number



This java program checks if a number is Armstrong or not. Armstrong number is a number which is equal to sum of digits raise to the power total number of digits in the number. Some Armstrong numbers are: 0, 1, 4, 5, 9, 153, 371, 407, 8208 etc.

Java programming code

```
import java.util.Scanner;

class ArmstrongNumber
{
    public static void main(String args[])
    {
        int n, sum = 0, temp, remainder, digits = 0;

        Scanner in = new Scanner(System.in);
        System.out.println("Input a number to check if it is
an Armstrong number");
        n = in.nextInt();

        temp = n;

        // Count number of digits

        while (temp != 0) {
            digits++;
            temp = temp/10;
        }

        temp = n;

        while (temp != 0) {
            remainder = temp%10;
            sum = sum + power(remainder, digits);
            temp = temp/10;
        }
    }
}
```

```

    if (n == sum)
        System.out.println(n + " is an Armstrong number.");
    else
        System.out.println(n + " is not an Armstrong
number.");
}

static int power(int n, int r) {
    int c, p = 1;

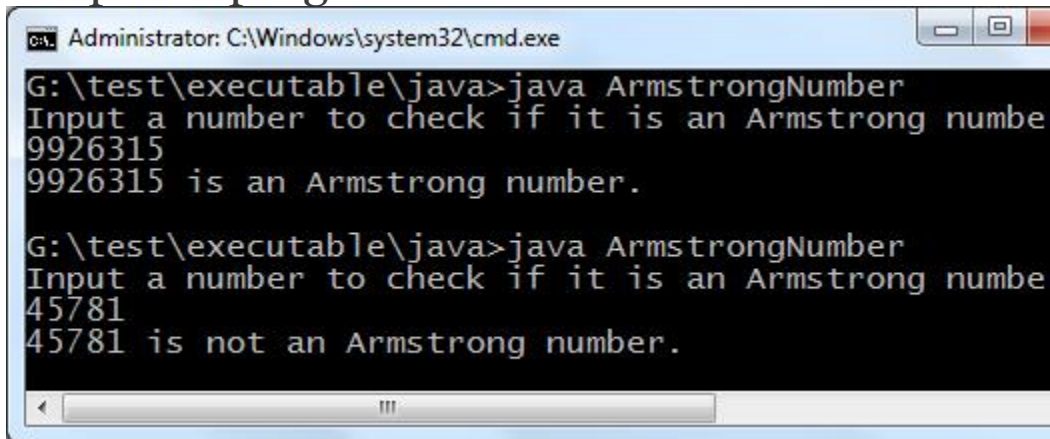
    for (c = 1; c <= r; c++)
        p = p*n;

    return p;
}
}

```

Download [Armstrong number](#) program class file.

Output of program:



The screenshot shows a Windows command prompt window titled "Administrator: C:\Windows\system32\cmd.exe". The prompt is at "G:\test\executable\java>". The user enters "java ArmstrongNumber". The program prompts "Input a number to check if it is an Armstrong numbe" (truncated). The user enters "9926315". The program outputs "9926315 is an Armstrong number.". The user enters another command "java ArmstrongNumber". The program prompts "Input a number to check if it is an Armstrong numbe" (truncated). The user enters "45781". The program outputs "45781 is not an Armstrong number.".

```

Administrator: C:\Windows\system32\cmd.exe
G:\test\executable\java>java ArmstrongNumber
Input a number to check if it is an Armstrong numbe
9926315
9926315 is an Armstrong number.

G:\test\executable\java>java ArmstrongNumber
Input a number to check if it is an Armstrong numbe
45781
45781 is not an Armstrong number.

```

Using one more loop in the above code you can generate Armstrong numbers from 1 to n(say) or between two integers (a to b).