

Assignment 1

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In [1]: '''1. Python Program to check Armstrong Number?

        HINT : 153 = 1*1*1 + 5*5*5 + 3*3*3 // 153 is an Armstrong number.'''

        #Armstrong

        num=input('Enter a number:')
        n=len(num)
        result=0
        for i in num:
            result+=int(i)**n
        if(result==int(num)):
            print(num,' is an Armstrong number')
        else:
            print(num,' is not an Armstrong number')

Enter a number:153
153 is an Armstrong number
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In [5]: '''2. Python Program for How to check if a given number is Fibonacci numb

        HINT : A Fibonacci sequence is the integer sequence of 0, 1, 1, 2, 3,

                The first two terms are 0 and 1.

                All other terms are obtained by adding the preceding two terms.

                This means to say the nth term is the sum of (n-1)th and (n-2)t

                ...

        #Fibonacci

        n=int(input('Enter a number:'))
        prev,next,i=0,1,0
        while i<=n:
            if(i == n):
                break
            i=prev+next
            prev=next
            next=i
        if(i==n):
            print(n, ' is a Fibonacci number')
        else:
            print(n, ' is not a Fibonacci number')

Enter a number:8
8 is a Fibonacci number
```