

2.write a program to check the give number is Armstrong or not using recursive function

Aim: To check the give number is Armstrong or not using recursive function

Program: def order(n):

```
    return len(str(n))
```

def is_armstrong(n, order):

```
    if n == 0:
```

```
        return 0
```

```
    else:
```

```
        return (n % 10) ** order + is_armstrong(n // 10, order)
```

def is_armstrong_number(n):

```
    order_val = order(n)
```

```
    temp = is_armstrong(n, order_val)
```

```
    return n == temp
```

Test the function with a number

```
number = 153
```

```
if is_armstrong_number(number):
```

```
    print(f"{number} is an Armstrong number")
```

```
else:
```

```
    print(f"{number} is not an Armstrong number")
```

Output:

```
153 is an Armstrong number

=== Code Execution Successful ===////////
```

Time complexity:- $O(n^2)$