1.Check the given number is odd or even

Coding Python

RUN MENU

Auto saved at 11:07:25

```python
def check_odd_even(num):
    if num % 2 == 0:
        print(num, "is Even")
    else:
        print(num, "is Odd")
n = int(input("Enter a number: "))
check_odd_even(n)
```

Compile Result

```
Enter a number: 5
5 is Odd

[Process completed - press Enter]
```

2. Count the total number of digits in a number

Coding Python

Auto saved at 11:11:37

```python
def count_digits(num):
    count = 0
    while num != 0:
        num //= 10
        count += 1
    print("Total digits:", count)
n = int(input("Enter a number: "))
count_digits(n)
```

Compile Result

```
Enter a number: 567
Total digits: 3

[Process completed - press Enter]
```

3.Write a Python program to print the reverse number pattern using a for loop

Coding Python

Auto saved at 11:13:43

RUN

```python
def reverse_pattern(n):
    for i in range(n, 0, -1):
        for j in range(i, 0, -1):
            print(j, end=" ")
        print()
n = int(input("Enter pattern size: "))
reverse_pattern(n)
```

Compile Result

```
Enter pattern size: 5
5 4 3 2 1
4 3 2 1
3 2 1
2 1
1

[Process completed - press Enter]
```

4.Print all prime numbers within a range

Coding Python

Auto saved at 11:18:09

RUN MENU

```python
def is_prime(n):
    if n < 2:
        return False
    for i in range(2, int(n**0.5)+1):
        if n % i == 0:
            return False
    return True
def print_primes(start, end):
    for num in range(start, end + 1):
        if is_prime(num):
            print(num, end=" ")
a = int(input("Enter start of range: "))
b = int(input("Enter end of range: "))
# print_primes(a, b)
```

Compile Result

```
Enter start of range: 5
Enter end of range: 12
5 7 11
[Process completed - press Enter]
```

5.Find the factorial of a given number

Coding Python

Auto saved at 11:19:44

```python
def factorial(n):
    fact = 1
    for i in range(1, n+1):
        fact *= i
    print("Factorial:", fact)
n = int(input("Enter a number: "))
factorial(n)
```

Compile Result

```
Enter a number: 5
Factorial: 120

[Process completed - press Enter]
```

6. Program to check if number is palindrome

Coding Python

Auto saved at 11:22:25

RUN

```python
def is_palindrome(num):
    original = str(num)
    if original == original[::-1]:
        print(num, "is a Palindrome")
    else:
        print(num, "is not a Palindrome")
n = int(input("Enter a number: "))
is_palindrome(n)
```

Compile Result

```
Enter a number: 565
565 is a Palindrome

[Process completed - press Enter]
```

7.Program to Check Armstrong Number

Coding Python

Auto saved at 11:22:25

RUN

```python
def is_palindrome(num):
    original = str(num)
    if original == original[::-1]:
        print(num, "is a Palindrome")
    else:
        print(num, "is not a Palindrome")
n = int(input("Enter a number: "))
is_palindrome(n)
```

Compile Result

```
Enter a number: 565
565 is a Palindrome

[Process completed - press Enter]
```

8. Find Maximum of three numbers

Coding Python

Auto saved at 11:26:41

RUN MENU

```python
def find_max(a, b, c):
    print("Maximum number is:", max(a, b, c))
x = int(input("Enter first number: "))
y = int(input("Enter second number: "))
z = int(input("Enter third number: "))
find_max(x, y, z)
```

Compile Result

```
Enter first number: 3
Enter second number: 5
Enter third number: 6
Maximum number is: 6
```

9. Find the Sum of digits

Coding Python

Auto saved at 11:28:22

```python
def sum_of_digits(num):
    total = 0
    while num > 0:
        total += num % 10
        num //= 10
    print("Sum of digits:", total)
n = int(input("Enter a number: "))
sum_of_digits(n)
```

Compile Result

```
Enter a number: 654
Sum of digits: 15

[Process completed - press Enter]
```

10. Python Program to Print the Natural Numbers Summation Pattern

Coding Python

Auto saved at 11:30:26

RUN MENU

```
def natural_sum_pattern(n):
    total = 0
    for i in range(1, n+1):
        total += i
        for j in range(1, i+1):
            print(j, end="+") if j != i else print(j, end="")
        print("=", total)

n = int(input("Enter a number: "))
natural_sum_pattern(n)
```

Compile Result

```
Enter a number= 5
1= 1
1+2= 3
1+2+3= 6
1+2+3+4= 10
1+2+3+4+5= 15

[Process completed - press Enter]
```