#1. prime number checker:

```python
num=int(input("Enter a number:"))
if num>1:
    for i in range(2,num):
        if(num%i)==0:
            print("Not prime")
            break
        else:
            print("primt")
```

2. Armstrong Number

```python
num=int(input("Enter a number:"))
sum=0
temp=num
while temp>0:
    digit=temp%10
    sum+=digit**3
    temp//=10
if num==sum:
    print("armstrong number")
else:
    print("Not armstrong number")
```

3. Palindrome Number or String:

```python
s=input("Enter a string of number:")
if s==s[::-1]:
    print("palindrome")
else:
    print("Not palindrome")
```

4. Factorial Calculator:

```python
n=int(input("Enter a number:"))
r=1
```

```python
for i in range(1,n+1):
    r=r*i
print(r)
```

sum of natural numbers:

```python
n=int(input("enter a number:"))
sum=0
for i in range(1,n+1):
    sum=sum+i
print(sum)
```

7. Reverse a Number:

```python
n=int(input("Enter a number:"))
rev=0
while n>0:
    digit=n%10
    rev=rev*10+digit
    n//=10
print(rev)
```

8. GCD (Greatest Common Divisor)

```python
def gcd(a,b):
    while a!=b:
        if a>b:
            a=a-b
        else:
            b=b-a
    return a
a=int(input("Enter first number:"))
b=int(input("Enter second number:"))
print(gcd(a,b))
```

9. LCM (Least Common Multiple)

```python
a=4
```

```
b=6
num=max(a,b)
while True:
  if num%a==0 and num%b==0:
    print(num)
    break
  num+=1
```

11. Number Reversal Palindrome:

```
def check_palindrome(num):
  if n<0:
    return "Not palindrome"
  original=0
  num=0
  while num>0:
    digit=num%10
    reversed=num*10+digit
    reversed//10
  if original == reversed_num:
    print("Palindrome")
  else:
    print("Not Palindrome")
```

12. Count Factors of a Number:

```
def count_factors(n):
  count = 0
  for i in range(1, n + 1):
    if n % i == 0:
      count += 1
  return count
```

```python
num = int(input("Enter a number: "))

print(count_factors(num))
```

13. Perfect Number :

```python
num=int(input("Enter a number:"))

sum=0

for i in range(1, num):

    if num % i == 0:

        sum += i

if sum==num:

    print("perfect number")

else:

    print("Not perfect number")
```

14. Swap Two Numbers Without Temp:

```python
a=int(input("Enter first number:"))

b=int(input("enter second number:"))

print(a)

print(b)

print("After swapping:")

a = a + b

b = a - b

a = a - b

print(a)

print(b)
```

15. Count Digits in a Number :

```python
num=7654395642457

count=0

while num>0:

    num=num//10

    count+=1

print(count)
```