```
number = int(input("Enter an integer: "))
if number % 3 == 0 and number % 5 == 0:
    print("Divisible by 3 and 5")
else:
    print("Not divisible by 3 and 5")
```

```
Enter an integer: 10
Not divisible by 3 and 5
```

```
number = int(input("Enter a positive integer: "))
sum_of_digits = 0
while number > 0:
    digit = number % 10
    sum_of_digits += digit
    number //= 10

print("Sum of digits:", sum_of_digits)
```

```
Enter a positive integer: 12
Sum of digits: 3
```

```
def count_even_odd():
    even_count = 0
    odd_count = 0

    while True:
        user_input = input("Enter a number (0 to stop): ")

        if user_input.isdigit() or (user_input.startswith('-') and user_input[1:].isdigit()):
            number = int(user_input)
        else:
            print("Please enter a valid integer.")
            continue

        if number == 0:
            break

        if number % 2 == 0:
            even_count += 1
        else:
            odd_count += 1

    print(f"Total even numbers: {even_count}")
    print(f"Total odd numbers: {odd_count}")



count_even_odd()
```

```
Enter a number (0 to stop): 10
Enter a number (0 to stop): 0
Total even numbers: 1
Total odd numbers: 0
```

```
from re import I

number = int(input("Enter a positive integer: "))
if number < 0:
    print("Please enter a positive integer.")
else:
    factorial = 1
    for i in range(1, number + 1):
        factorial *= i
    print(f"The factorial of {number} is {factorial}")
```

```
Enter a positive integer: 10
The factorial of 10 is 3628800
```

```
number= int(input("Enter a number to generate its multipication table:"))
print(f"Multification table for{number}:")
for i in range(1,13):
  result = number *i
  print(f"{number} *{i}= {result}")
```

```
Enter a number to generate its multipication table:5
Multification table for5:
5 *1= 5
5 *2= 10
5 *3= 15
5 *4= 20
5 *5= 25
5 *6= 30
5 *7= 35
5 *8= 40
5 *9= 45
5 *10= 50
5 *11= 55
5 *12= 60
```

```
numbers = []

while True:
    num = int(input("Enter a number (-1 to stop): "))
    if num == -1:
        break
    numbers.append(num)

if numbers:
    largest_number = max(numbers)
    print("The largest number is:", largest_number)
else:
    print("No numbers were entered.")
```

```
Enter a number (-1 to stop): -1
No numbers were entered.
```

```
number = int(input("Enter a number to check if it's prime: "))

if number < 2:
    print("Not Prime")
else:
    is_prime = True
    for i in range(2, int(number**0.5) + 1):
        if number % i == 0:
            is_prime = False
            break
    if is_prime:
        print("Prime")
    else:
        print("Not Prime")
```

```
Enter a number to check if it's prime: 10
Not Prime
```

```
score = int(input("Enter the student's score: "))

if 90 <= score <= 100:
    grade = "A"
elif 80 <= score < 90:
    grade = "B"
```

```
elif 70 <= score < 80:

    grade = "C"

elif 60 <= score < 70:

    grade = "D"

elif score < 60:

    grade = "F"

else:

    grade = "Invalid score"


print("The grade is:", grade)
```

```
Enter the student's score: 90
The grade is: A
```