

Exercise 1: Check if a number is positive, negative, or zero

```
n = int(input())
if n > 0:
    print("Positive")
elif n < 0:
    print("Negative")
else:
    print("Zero")
```

Exercise 2: Check if a number is even or odd

```
n = int(input())
if n % 2 == 0:
    print("Even")
else:
    print("Odd")
```

Exercise 3: Find the largest among three numbers

```
a = int(input())
b = int(input())
c = int(input())
print(max(a, b, c))
```

Exercise 4: Check if a person is eligible to vote (age >= 18)

```
age = int(input())
if age >= 18:
    print("Eligible to vote")
else:
    print("Not eligible")
```

Exercise 5: Grade a student based on marks (A/B/C/Fail)

```
marks = int(input())
if marks >= 90:
    print("A")
elif marks >= 75:
    print("B")
elif marks >= 50:
    print("C")
else:
    print("Fail")
```

Exercise 6: Print numbers from 1 to 10 using a for loop

```
for i in range(1, 11):
    print(i)
```

Exercise 7: Print the multiplication table of a given number

```
n = int(input())
for i in range(1, 11):
    print(n, "x", i, "=", n * i)
```

Exercise 8: Calculate the sum of numbers from 1 to 100

```
total = 0
for i in range(1, 101):
    total += i
print(total)
```

Exercise 9: Print all even numbers between 1 and 50

```
for i in range(1, 51):
    if i % 2 == 0:
        print(i)
```

Exercise 10: Loop through a string and print each character

```
s = input()
for ch in s:
    print(ch)
```

Exercise 11: Print numbers from 1 to 10 using while loop

```
i = 1
while i <= 10:
    print(i)
    i += 1
```

Exercise 12: Find the factorial of a number using while loop

```
n = int(input())
fact = 1
while n > 0:
    fact *= n
    n -= 1
print(fact)
```

Exercise 13: Reverse a number using while loop

```
n = int(input())
rev = 0
while n > 0:
    rev = rev * 10 + n % 10
    n //= 10
print(rev)
```

Exercise 14: Print digits of a number one by one

```
n = int(input())
```

```
while n > 0:
    print(n % 10)
    n //= 10
```

Exercise 15: Count the number of digits in a number

```
n = int(input())
count = 0
```

```
while n > 0:
    count += 1
    n //= 10
```

```
print(count)
```

Exercise 16: Exit loop when a number is found (break)

```
nums = [3, 8, 12, 5, 7]
key = int(input())
```

```
for n in nums:
    if n == key:
        print("Found")
        break
```

Exercise 17: Skip even numbers using continue

```
for i in range(1, 11):
    if i % 2 == 0:
        continue
    print(i)
```

Exercise 18: Keep asking user input until they type 'exit' (while + break)

```
while True:
```

```
    word = input()
```

```
    if word == "exit":
```

```
        break
```

Exercise 19: Use a loop to find the first number divisible by 7 and 5

```
for i in range(1, 101):
```

```
    if i % 7 == 0 and i % 5 == 0:
```

```
        print(i)
```

```
        break
```

Exercise 20: Print numbers from 1 to 20, skip multiples of 3

```
for i in range(1, 21):
```

```
    if i % 3 == 0:
```

```
        continue
```

```
    print(i)
```

Exercise 21: Use nested if to check if a number is in a range and even

```
n = int(input())
```

```
if 10 <= n <= 100:
```

```
    if n % 2 == 0:
```

```
        print("In range and even")
```

```
    else:
```

```
        print("In range but odd")
```

```
else:
```

```
    print("Out of range")
```

Exercise 22: Nested loops to print a pattern (e.g. triangle of stars)

```
rows = int(input())
```

```
for i in range(1, rows + 1):  
    for j in range(i):  
        print("*", end="")  
    print()
```

Exercise 23: Print all prime numbers between 1 and 50

```
for num in range(2, 51):  
    prime = True  
    for i in range(2, int(num ** 0.5) + 1):  
        if num % i == 0:  
            prime = False  
            break  
    if prime:  
        print(num)
```