# 25 Python While Loop Examples

This document includes 25 clear and well-commented Python while loop examples — ideal for student practice and understanding basic to advanced loop concepts.

## 1. Print numbers from 1 to 10

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

## 2. Print numbers from 10 to 1

i = 10  
while i >= 1:  
 print(i)  
 i -= 1

## 3. Print even numbers from 2 to 20

i = 2  
while i <= 20:  
 print(i)  
 i += 2

## 4. Print odd numbers from 1 to 19

i = 1  
while i < 20:  
 print(i)  
 i += 2

## 5. Sum of first 10 natural numbers

i = 1  
total = 0  
while i <= 10:  
 total += i  
 i += 1  
print("Sum =", total)

## 6. Print multiplication table of 5

i = 1

while i <= 10:  
 print(f"5 x {i} = {5\*i}")  
 i += 1

## 7. Countdown from user input number

n = int(input("Enter a number: "))  
while n >= 1:  
 print(n)  
 n -= 1

## 8. Print characters of a string

word = "Python"  
i = 0  
while i < len(word):  
 print(word[i])  
 i += 1

## 9. Print list items using while

fruits = ["Apple", "Banana", "Mango"]  
i = 0  
while i < len(fruits):  
 print(fruits[i])  
 i += 1

## 10. Print only even numbers from 1 to 10 using if

i = 1  
while i <= 10:  
 if i % 2 == 0:  
 print(i)  
 i += 1

## 11. Print only odd numbers using if

i = 1  
while i <= 20:  
 if i % 2 != 0:  
 print(i)  
 i += 1

## 12. Print numbers divisible by 3

i = 1  
while i <= 30:  
 if i % 3 == 0:  
 print(i)  
 i += 1

## 13. Print numbers until sum exceeds 50

i = 1  
total = 0  
while total <= 50:  
 total += i  
 print("Number:", i, "Sum:", total)  
 i += 1

## 14. Print factorial of a number

n = int(input("Enter number: "))  
fact = 1  
while n > 0:  
 fact \*= n  
 n -= 1  
print("Factorial =", fact)

## 15. Reverse digits of a number

n = int(input("Enter number: "))  
rev = 0  
while n > 0:  
 digit = n % 10  
 rev = rev \* 10 + digit  
 n //= 10  
print("Reversed =", rev)

## 16. Count number of digits in a number

n = int(input("Enter number: "))  
count = 0  
while n > 0:  
 n //= 10  
 count += 1  
print("Total digits =", count)

## 17. Print only positive numbers from list

nums = [3, -5, 6, -1, 0, 8]  
i = 0  
while i < len(nums):  
 if nums[i] > 0:  
 print(nums[i])  
 i += 1

## 18. Find maximum number in a list

nums = [5, 12, 3, 9, 15, 7]  
i = 1  
largest = nums[0]  
while i < len(nums):  
 if nums[i] > largest:  
 largest = nums[i]  
 i += 1  
print("Largest number =", largest)

## 19. Print square of numbers 1 to 10

i = 1  
while i <= 10:  
 print(i, "square =", i\*i)  
 i += 1

## 20. Print only vowels from string

word = "Education"  
i = 0  
while i < len(word):  
 if word[i].lower() in "aeiou":  
 print(word[i])  
 i += 1

## 21. Keep asking user until they type ‘exit’

text = ""  
while text.lower() != "exit":  
 text = input("Type something (or 'exit' to stop): ")  
print("Loop ended!")

## 22. Guess the secret number

secret = 7  
guess = 0  
while guess != secret:  
 guess = int(input("Guess the number (1-10): "))  
print("Correct! You guessed it.")

## 23. Display multiplication table from 1 to 3

table = 1  
while table <= 3:  
 i = 1  
 while i <= 10:  
 print(f"{table} x {i} = {table\*i}")  
 i += 1  
 print("------------")  
 table += 1

## 24. Display Fibonacci series up to 10 terms

a, b = 0, 1  
count = 0  
while count < 10:  
 print(a)  
 a, b = b, a + b  
 count += 1

## 25. Continue example – skip even numbers

i = 0  
while i < 10:  
 i += 1  
 if i % 2 == 0:  
 continue  
 print(i)