

1. Write a function `greet()` that prints a welcome message.

Answer:

```
def greet():  
    print("Welcome to Python Programming!")
```

2. Create a function `add(a, b)` that returns the sum of two numbers.

Answer:

```
def add(a, b):  
    return a + b
```

3. Write a function `area_of_circle(radius)` that returns the area of a circle. Use $\pi = 3.14$.

Answer:

```
def area_of_circle(radius):  
    return 3.14 * radius ** 2
```

4. Write a function `is_even(number)` that returns True if the number is even, else False.

Answer:

```
def is_even(number):  
    return number % 2 == 0
```

5. Create a function `fahrenheit_to_celsius(f)` that converts Fahrenheit to Celsius.

Answer:

```
def fahrenheit_to_celsius(f):  
    return (f - 32) * 5/9
```

6. Write a function `print_table(n)` that prints the multiplication table of a number up to 10.

Answer:

```
def print_table(n):  
    for i in range(1, 11):  
        print(f"{n} x {i} = {n*i}")
```

7. Create a function `max_of_three(a, b, c)` that returns the largest of the three numbers.

Answer:

```
def max_of_three(a, b, c):  
    return max(a, b, c)
```

8. Write a function `is_palindrome(word)` that checks if a word reads the same forward and backward.

Answer:

```
def is_palindrome(word):  
    return word == word[::-1]
```

9. Create a function `calculate_bmi(weight, height)` that returns the BMI and its category.

Answer:

```
def calculate_bmi(weight, height):  
    bmi = weight / (height ** 2)  
    if bmi < 18.5:  
        category = "Underweight"  
    elif bmi < 25:  
        category = "Normal"  
    elif bmi < 30:  
        category = "Overweight"  
    else:  
        category = "Obese"  
    return bmi, category
```

10. Write a function `simple_interest(p, r, t)` that calculates and returns the interest.

Answer:

```
def simple_interest(p, r, t):  
    return (p * r * t) / 100
```

11. Create a function `is_prime(n)` that checks if a number is prime.

Answer:

```
def is_prime(n):  
    if n <= 1:  
        return False  
    for i in range(2, int(n**0.5) + 1):  
        if n % i == 0:  
            return False  
    return True
```

12. Write a function `count_vowels(text)` that returns the number of vowels.

Answer:

```
def count_vowels(text):
    vowels = "aeiouAEIOU"
    count = 0
    for char in text:
        if char in vowels:
            count += 1
    return count
```

13. Create a function `login(username, password)` that prints 'Login Successful' only if both match predefined values.

Answer:

```
def login(username, password):
    if username == "admin" and password == "1234":
        print("Login Successful")
    else:
        print("Login Failed")
```

14. Write a function `grade_calculator(marks)` that returns grades (A, B, C, D, F).

Answer:

```
def grade_calculator(marks):
    if marks >= 90:
        return "A"
    elif marks >= 80:
        return "B"
    elif marks >= 70:
        return "C"
    elif marks >= 60:
        return "D"
    else:
        return "F"
```

15. Write a function `average_of_list(numbers)` that returns the average.

Answer:

```
def average_of_list(numbers):  
    return sum(numbers) / len(numbers)
```

16. Create a function `volume_of_cylinder(radius, height)` to return the volume.

Answer:

```
def volume_of_cylinder(radius, height):  
    return 3.14 * radius ** 2 * height
```

17. Define a function `reverse_string(text)` that returns the reversed string.

Answer:

```
def reverse_string(text):  
    return text[::-1]
```

18. Write a function `factorial(n)` that returns the factorial using a for loop.

Answer:

```
def factorial(n):  
    result = 1  
    for i in range(1, n + 1):  
        result *= i  
    return result
```

19. Create a function `greet_user(name, message='Good day!')` that greets with a default message.

Answer:

```
def greet_user(name, message='Good day!'):  
    print(f"Hello {name}, {message}")
```

20. Define a function `calculate_discount(price, discount_percent=10)` that returns the discounted price.

Answer:

```
def calculate_discount(price, discount_percent=10):  
    return price - (price * discount_percent / 100)
```