

Exercises

1. Write a Python program to calculate the area of a circle given its radius.
2. Write a Python program to print the sum of the first 10 natural numbers.
3. Write a Python program to check whether a given number is even or odd.
4. Write a Python program to find the largest element in a list.
5. Write a Python program to reverse a string.
6. Write a Python program to check whether a given string is a palindrome.
7. Write a Python program to calculate the factorial of a given number.
8. Write a Python program to convert a Celsius temperature to Fahrenheit.
9. Write a Python program to generate a random number between 1 and 10.
10. Write a Python program to count the number of vowels in a given string.

Exercises and Solution

1. Write a Python program to calculate the area of a circle given its radius.

```
import math
radius = float(input("Enter the radius of the circle: "))
area = math.pi * radius ** 2
print("The area of the circle is:", area)
```

2. Write a Python program to print the sum of the first 10 natural numbers.

```
n = 10
sum = 0
for i in range(1, n+1):
    sum += i
print("The sum of the first 10 natural numbers is:", sum)
print("The sum of the first 10 natural numbers is:", sum)
```

3. Write a Python program to check whether a given number is even or odd.

```
num = int(input("Enter a number: "))
if num % 2 == 0:
    print(num, "is even")
else:
    print(num, "is odd")
```

4. Write a Python program to find the largest element in a list.

```
list = [5, 10, 15, 20, 25, 30]
max = list[0]
for i in range(1, len(list)):
    if list[i] > max:
        max = list[i]
print("The largest element in the list is:", max)
```

5. Write a Python program to reverse a string.

```
string = input("Enter a string: ")
reverse = ""
for i in range(len(string)-1, -1, -1):
    reverse += string[i]
print("The reverse of the string is:", reverse)
```

6. Write a Python program to check whether a given string is a palindrome.

```
string = input("Enter a string: ")
reverse = ""
for i in range(len(string)-1, -1, -1):
    reverse += string[i]
if string == reverse:
    print(string, "is a palindrome")
else:
    print(string, "is not a palindrome")
```

7. Write a Python program to calculate the factorial of a given number.

```
num = int(input("Enter a number: "))
factorial = 1
for i in range(1, num+1):
    factorial *= i
print("The factorial of", num, "is:", factorial)
```

8. Write a Python program to convert a Celsius temperature to Fahrenheit.

```
celsius = float(input("Enter the temperature in Celsius: "))
fahrenheit = (celsius * 9/5) + 32
print(celsius, "Celsius = ", fahrenheit, "Fahrenheit")
```

9. Write a Python program to generate a random number between 1 and 10.

```
import random
```

```
num = random.randint(1, 10)
print("The random number is:", num)
```

10. Write a Python program to count the number of vowels in a given string.

```
string = input("Enter a string: ")
vowels = 'aeiouAEIOU'
count = 0
for i in string:
    if i in vowels:
        count += 1
print("The number of vowels in the string is:", count)
```