Exercise 1: Calculate the multiplication and sum of two numbers

Given two integer numbers, write a Python program to return their product only if the product is equal to or lower than 1000. Otherwise, return their sum.

Given 1:

```
number1 = 20

number2 = 30
```

Expected Output:

```
The result is 600
```

Given 2:

```
number1 = 40

number2 = 30
```

Expected Output:

```
The result is 70
```

Exercise 2: Print the Sum of a Current Number and a Previous number

Write Python code to iterate through the first 10 numbers and, in each iteration, print the sum of the current and previous number.

Expected Output:

```
Printing current and previous number sum in a range(10)

Current Number 0 Previous Number  0  Sum:  0

Current Number 1 Previous Number  0  Sum:  1

Current Number 2 Previous Number  1  Sum:  3

Current Number 3 Previous Number  2  Sum:  5

Current Number 4 Previous Number  3  Sum:  7

Current Number 5 Previous Number  4  Sum:  9

Current Number 6 Previous Number  5  Sum:  11

Current Number 7 Previous Number  6  Sum:  13

Current Number 8 Previous Number  7  Sum:  15

Current Number 9 Previous Number  8  Sum:  17
```

Exercise 3: Print characters present at an even index number

Write a Python code to accept a string from the user and display characters present at an even index number.

For example, `str = "NVCA Lions"`. so your code should display ‘V’, ‘A’, ‘L’, ‘O’, ‘S’.

Expected Output:

```
Orginal String is  NVCA Lions
Printing only even index chars
V
A
L
o
s
```

Exercise 4: Check if the first and last numbers of a list are the same

Write a code to return `True` if the list's first and last numbers are the same. If the numbers are different, return `False`.

Given:

```
numbers_x = [10, 20, 30, 40, 10]

# output True



numbers_y = [75, 65, 35, 75, 30]

# Output False
```

Exercise 5: Display numbers divisible by 5

Write a Python code to display numbers from a list divisible by 5

Expected Output:

```
Given list is  [10, 20, 33, 46, 55]

Divisible by 5

10

20

55
```

Exercise 6: Print the following pattern

```
1

2 2

3 3 3

4 4 4 4

5 5 5 5 5
```

Exercise 7: Check Palindrome Number

Write a Python code to check if the given number is a palindrome. A palindrome number reads the same forwards and backward. For example, **545 is a palindrome number**.

Expected Output:

```
original number 121

Yes. given number is palindrome number



original number 125

No. given number is not palindrome number
```

Exercise 8: Print multiplication table from 1 to 10

The multiplication table from 1 to 10 is a table that shows the products of numbers from 1 to 10.

Write a code to generates a complete **multiplication table for numbers 1 through 10**.

Expected Output:

```
1  2 3 4 5 6 7 8 9 10
2  4 6 8 10 12 14 16 18 20
3  6 9 12 15 18 21 24 27 30
4  8 12 16 20 24 28 32 36 40
5  10 15 20 25 30 35 40 45 50
6  12 18 24 30 36 42 48 54 60
7  14 21 28 35 42 49 56 63 70
8  16 24 32 40 48 56 64 72 80
9  18 27 36 45 54 63 72 81 90
10 20 30 40 50 60 70 80 90 100
```

Exercise 9: Generate Fibonacci series up to 15 terms

Have you ever wondered about the Fibonacci Sequence? It's a series of numbers in which the next number is found by adding up the two numbers before it. The first two numbers are 0 and 1.

For example, 0, 1, 1, 2, 3, 5, 8, 13, 21. The next number in this series is 13 + 21 = 34.

Expected output:

```
Fibonacci sequence:
0  1  1  2  3  5  8  13  21  34  55  89  144  233  377
```

Exercise 10: Create a simple countdown timer using a `while` loop.

Write a code to create a **simple countdown timer of 5 seconds** using a `while` loop.

Once the timer finishes (when the remaining time reaches zero), print a “Time’s up!” message.

Expected Output:

```
Time remaining: 5 seconds
Time remaining: 4 seconds
Time remaining: 3 seconds
Time remaining: 2 seconds
Time remaining: 1 seconds
Time's up!
```