Test cases

- Exchange Sort
  - o   Case 1: {1, 4, 2, 9, 7, 8, 10}

    Expected: 1 2 4 7 8 9 10
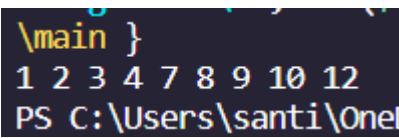
    Given:
    ```
    =C++17 *.cpp -o main } ; if ($?) { .\
    1 2 4 7 8 9 10
    PS C:\Users\santi\OneDrive\Escritorio
    ```

  - o   Case 2: {12, 1, 4, 2, 9, 7, 8, 10}

    Expected: 1 2 4 7 8 9 10 12

    Given:
    ```
    \main }
    1 2 4 7 8 9 10 12
    PS C:\Users\santi\On
    ```

  - o   Case 3: {12, 1, 4, 2, 9, 7, 8, 10, 3}

    Expected: 1 2 3 4 7 8 9 10 12

    Given:
    ```
    \main }
    1 2 3 4 7 8 9 10 12
    PS C:\Users\santi\OneD
    ```
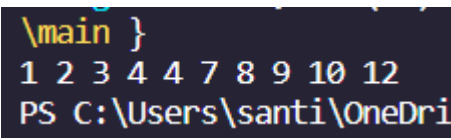
  - o   Case 4: {12, 1, 4, 2, 9, 7, 8, 10, 3, 4}

    Expected: 1 2 3 4 4 7 8 9 10 12

    Given:
    ```
    \main }
    1 2 3 4 4 7 8 9 10 12
    PS C:\Users\santi\OneDri
    ```
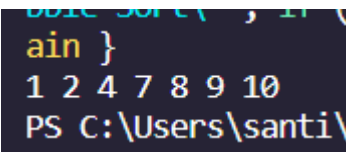
- Bubble Sort
  - o   Case 1: {1, 4, 2, 9, 7, 8, 10}

    Expected: 1 2 4 7 8 9 10

    Given:
    ```
    bble Sort(  ) ; if (
    ain }
    1 2 4 7 8 9 10
    PS C:\Users\santi\
    ```

  - o   Case 2: {12, 1, 4, 2, 9, 7, 8, 10}

    Expected: 1 2 4 7 8 9 10 12

Given:

```
emestres\3\PRODASFA
1 2 4 7 8 9 10 12
PS C:\Users\santi\O
```

- o Case 3: {12, 1, 4, 2, 9, 7, 8, 10, 3}

  Expected: 1 2 3 4 7 8 9 10 12

Given:

```
mestres\3\PRODASFA\S.
1 2 3 4 7 8 9 10 12
PS C:\Users\santi\On
```

- o Case 4: {12, 1, 4, 2, 9, 7, 8, 10, 3, 4}

  Expected: 1 2 3 4 4 7 8 9 10 12

Given:

```
emestres\3\PRODASFA\S3\
1 2 3 4 4 7 8 9 10 12
PS C:\Users\santi\OneDr:
```

- ● Merge Sort
  - o Case 1: {1, 4, 2, 9, 7, 8, 10}

    Expected: 1 2 4 7 8 9 10

Given:

```
emestres\3\PRODASFA\
1 2 4 7 8 9 10
PS C:\Users\santi\On
```

- o Case 2: {12, 1, 4, 2, 9, 7, 8, 10}

  Expected: 1 2 4 7 8 9 10 12

Given:

```
mestres\3\PRODASFA\
1 2 4 7 8 9 10 12
PS C:\Users\santi\O
```

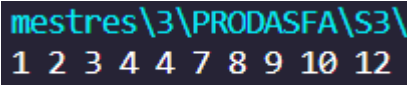- o Case 3: {12, 1, 4, 2, 9, 7, 8, 10, 3}

  Expected: 1 2 3 4 7 8 9 10 12

Given:

```
emestres\3\PRODASFA\
1 2 3 4 7 8 9 10 12
PS C:\Users\santi\On
```
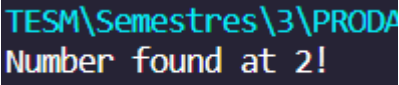
o   Case 4: {12, 1, 4, 2, 9, 7, 8, 10, 3, 4}

Expected: 1 2 3 4 4 7 8 9 10 12

Given:
```
mestres\3\PRODASFA\S3\
1 2 3 4 4 7 8 9 10 12
PS C:\Users\santi\OneD
```

- Sequential Search
    o   Case 1: 2; {1, 4, 2, 9, 7, 8, 10}
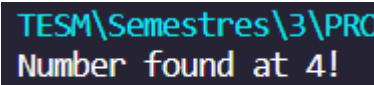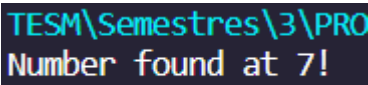
Expected: Number found at 2!

Given:
```
TESM\Semestres\3\PRODA
Number found at 2!
PS C:\Users\santi\OneD
```

o   Case 2: 7; {1, 4, 2, 9, 7, 8, 10, 11}

Expected: Number found at 4!

Given:
```
TESM\Semestres\3\PRO
Number found at 4!
PS C:\Users\santi\On
```

o   Case 3: 11; {1, 4, 2, 9, 7, 8, 10, 11}

Expected: Number found at 7!

Given:
```
TESM\Semestres\3\PRO
Number found at 7!
PS C:\Users\santi\On
```

o   Case 4: 5; {1, 4, 2, 9, 7, 8, 10, 11}

Expected: Number not found.

Given:
```
TESM\Semestres\3\PR
Number not found.
PS C:\Users\santi\C
```

- Binary Search (Sorts the vector and then does the search)
    o   Case 1: 2; {1, 4, 2, 9, 7, 8, 10}

Expected: Number found at 1!

Given:

```
TESM\Semestres\3\PRC
Number found at 1!
PS C:\Users\santi\On
```

o   Case 2: 7; {1, 4, 2, 9, 7, 8, 10, 11}

Expected: Number found at 3!

Given:

```
\Semestres\3\PRODASF
Number found at 3!
PS C:\Users\santi\On
```
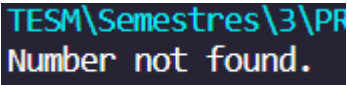
o   Case 3: 11; {1, 4, 2, 9, 7, 8, 10, 11}

Expected: Number found at 7!

Given:

```
\Semestres\3\PRODASFA
Number found at 7!
PS C:\Users\santi\One
```

o   Case 4: 5; {1, 4, 2, 9, 7, 8, 10, 11}

Expected: Number not found.

Given:

```
\Semestres\3\PRODAS
Number not found.
PS C:\Users\santi\O
```