## <u>Dashboard</u> / My courses / <u>ML and DA</u> / <u>VIRTUAL PROGRAMMING CSE C1& D1</u>

/ 04.01.2022 Practice Ex.4 & 5 Learning Looping Statements & Functions

Started on Tuesday, 4 January 2022, 3:50 PM

State Finished

Completed on Tuesday, 4 January 2022, 3:53 PM

Time taken 2 mins 51 secs

**Grade 6.00** out of 6.00 (100%)

```
Question 1
Correct
Mark 1.00 out of 1.00
```

Write python code to display whether the given number is prime number or not.

Answer: (penalty regime: 0 %)

```
num = int(input())
3 ▼
    if num > 1:
       for i in range(2,num):
4 •
5 🔻
           if (num \% i) = 0:
6
                print(num,"is not a prime number")
7
                print(i, "times", num//i, "is", num)
 8
                break
9
       else:
10
           print(num, "is a prime number")
11
12 •
    else:
13
       print(num,"is not a prime number")
```

|          | Input  | Expected   | Got   |   |  |  |  |  |
|----------|--|--|---|---|--|--|--|--|
| <b>~</b> | 3<br>3 is a prime number                               | 3<br>3 is a prime number                               | 3<br>3 is a prime number                                |   |  |  |  |  |
| ~        | 6 6 is not a prime number 2 times 3 is 6               | 6 6 is not a prime number 2 times 3 is 6               | 6 6 is not a prime number 2 times 3 is 6                | ~ |  |  |  |  |
| ~        | 960<br>960 is not a prime number<br>2 times 480 is 960 | 960<br>960 is not a prime number<br>2 times 480 is 960 | 960<br>r 960 is not a prime numbe<br>2 times 480 is 960 |   |  |  |  |  |
| ~        | 79<br>79 is a prime number                             | 79<br>79 is a prime number                             | 79<br>79 is a prime number                              | ~ |  |  |  |  |

Passed all tests! ✓

# Question author's solution (Python3):

```
1    num = int(i
2    if num > 1:
    num = int(input())
         for i in range(2,num):
 3 ▼
 4 •
              if (num % i) == 0:
                   print(num, "is not a prime number")
print(i, "times", num//i, "is", num)
 5
 6
 7
                   break
         else:
 9
              print(num, "is a prime number")
10 v else:
         print(num,"is not a prime number")
11
```

Correct

```
Question 2
Correct
Mark 1.00 out of 1.00
```

## Write python code to find the factorial of the given number.

Answer: (penalty regime: 0 %)

```
num = int(input())
3
    factorial = 1
4
5 v if num < 0:
       print("Sorry, factorial does not exist for negative numbers")
7 \cdot | elif num == 0:
8
       print("The factorial of 0 is 1")
9 v else:
10 •
       for i in range(1,num + 1):
           factorial = factorial*i
11
       print("The factorial of",num,"is",factorial)
12
```

|   | Input  | Expected  | Got   |   |
|---|--|---|---|---|
| ~ | 7<br>The factorial of 7 is 5040                                    | 7<br>The factorial of 7 is 5040                               | 7<br>The factorial of 7 is 5040                               | ~ |
| ~ | <pre>-9 Sorry, factorial does not exist for negative numbers</pre> | -9<br>Sorry, factorial does not exist<br>for negative numbers | -9<br>Sorry, factorial does not exist<br>for negative numbers | ~ |
| ~ | 15<br>The factorial of 15 is<br>1307674368000                      | 15<br>The factorial of 15 is<br>1307674368000                 | 15<br>The factorial of 15 is<br>1307674368000                 | ~ |

Passed all tests! 🗸

# Question author's solution (Python3):

Correct

```
Question 3
Correct
Mark 1.00 out of 1.00
```

## Write python code to display the prime numbers within the given set of range.

Answer: (penalty regime: 0 %)

|   | Input                              | Expected                           | Got                                |   |
|---|------------------------------------|------------------------------------|------------------------------------|---|
| ~ | 900                                | 900                                | 900                                | ~ |
|   | 1000                               | 1000                               | 1000                               |   |
|   | Prime numbers between 900 and 1000 | Prime numbers between 900 and 1000 | Prime numbers between 900 and 1000 |   |
|   | are:                               | are:                               | are:                               |   |
|   | 907                                | 907                                | 907                                |   |
|   | 911                                | 911                                | 911                                |   |
|   | 919                                | 919                                | 919                                |   |
|   | 929                                | 929                                | 929                                |   |
|   | 937                                | 937                                | 937                                |   |
|   | 941                                | 941                                | 941                                |   |
|   | 947                                | 947                                | 947                                |   |
|   | 953                                | 953                                | 953                                |   |
|   | 967                                | 967                                | 967                                |   |
|   | 971                                | 971                                | 971                                |   |
|   | 977                                | 977                                | 977                                |   |
|   | 983                                | 983                                | 983                                |   |
|   | 991                                | 991                                | 991                                |   |
|   | 997                                | 997                                | 997                                |   |

|     | Input                             | Expected                          | Got                               |    |
|-----|-----------------------------------|-----------------------------------|-----------------------------------|----|
| ~   | 554                               | 554                               | 554                               | ١, |
|     | 984                               | 984                               | 984                               |    |
|     | Prime numbers between 554 and 984 | Prime numbers between 554 and 984 | Prime numbers between 554 and 984 |    |
|     | are:                              | are:                              | are:                              |    |
|     | 557                               | 557                               | 557                               |    |
|     | 563                               | 563                               | 563                               |    |
|     | 569                               | 569                               | 569                               |    |
|     | 571                               | 571                               | 571                               |    |
|     | 577                               | 577                               | 577                               |    |
|     | 587                               | 587                               | 587                               |    |
|     | 593                               | 593                               | 593                               |    |
|     | 599                               | 599                               | 599                               |    |
|     | 601                               | 601                               | 601                               |    |
|     | 607                               | 607                               | 607                               |    |
|     | 613                               | 613                               | 613                               |    |
|     | 617                               | 617                               | 617                               |    |
|     | 619                               | 619                               | 619                               |    |
|     | 631                               | 631                               | 631                               |    |
|     | 641                               | 641                               | 641                               |    |
|     | 643                               | 643                               | 643                               |    |
|     | 647                               | 647                               | 647                               |    |
|     | 653                               | 653                               | 653                               |    |
|     | 659                               | 659                               | 659                               |    |
|     | 661                               | 661                               | 661                               |    |
|     | 673                               | 673                               | 673                               |    |
|     | 677                               | 677                               | 677                               |    |
|     | 683                               | 683                               | 683                               |    |
|     | 691                               | 691                               | 691                               |    |
|     | 701                               | 701                               | 701                               |    |
|     |                                   |                                   |                                   |    |
|     | 709                               | 709                               | 709                               |    |
|     | 719                               | 719                               | 719                               |    |
|     | 727                               | 727                               | 727                               |    |
|     | 733                               | 733                               | 733                               |    |
|     | 739                               | 739                               | 739                               |    |
|     | 743                               | 743                               | 743                               |    |
|     | 751                               | 751                               | 751                               |    |
|     | 757                               | 757                               | 757                               |    |
|     | 761                               | 761                               | 761                               |    |
|     | 769                               | 769                               | 769                               |    |
|     | 773                               | 773                               | 773                               |    |
|     | 787                               | 787                               | 787                               |    |
|     | 797                               | 797                               | 797                               |    |
|     | 809                               | 809                               | 809                               |    |
|     | 811                               | 811                               | 811                               |    |
|     | 821                               | 821                               | 821                               |    |
|     | 823                               | 823                               | 823                               |    |
|     | 827                               | 827                               | 827                               |    |
|     | 829                               | 829                               | 829                               |    |
|     | 839                               | 839                               | 839                               |    |
|     | 853                               | 853                               | 853                               |    |
|     | 857                               | 857                               | 857                               |    |
|     | 859                               | 859                               | 859                               |    |
|     | 863                               | 863                               | 863                               |    |
|     | 877                               | 877                               | 877                               |    |
|     | 877<br>881                        | 881                               | 881                               |    |
|     | 883                               | 883                               | 883                               |    |
|     |                                   | 883                               |                                   |    |
|     | 887                               | 907                               | 887                               |    |
|     | 907                               |                                   | 907                               |    |
|     | 911                               | 911                               | 911                               |    |
|     | 919                               | 919                               | 919                               |    |
|     | 929                               | 929                               | 929                               |    |
|     | 937                               | 937                               | 937                               |    |
|     | 941                               | 941                               | 941                               |    |
|     | 947                               | 947                               | 947                               |    |
|     | 953                               | 953                               | 953                               |    |
|     | 967                               | 967                               | 967                               |    |
|     | 971                               | 971                               | 971                               |    |
| - 1 | 977                               | 977                               | 977                               |    |
|     |                                   |                                   | 983                               |    |

|   |                                 |                                 | <u> </u>                        |   |
|---|---------------------------------|---------------------------------|---------------------------------|---|
|   | Input                           | Expected                        | Got                             |   |
| ~ | 0                               | 0                               | 0                               | ~ |
|   | 100                             | 100                             | 100                             |   |
|   | Prime numbers between 0 and 100 | Prime numbers between 0 and 100 | Prime numbers between 0 and 100 |   |
|   | are:                            | are:                            | are:                            |   |
|   | 2                               | 2                               | 2                               |   |
|   | 3                               | 3                               | 3                               |   |
|   | 5                               | 5                               | 5                               |   |
|   | 7                               | 7                               | 7                               |   |
|   | 11                              | 11                              | 11                              |   |
|   | 13                              | 13                              | 13                              |   |
|   | 17                              | 17                              | 17                              |   |
|   | 19                              | 19                              | 19                              |   |
|   | 23                              | 23                              | 23                              |   |
|   | 29                              | 29                              | 29                              |   |
|   | 31                              | 31                              | 31                              |   |
|   | 37                              | 37                              | 37                              |   |
|   | 41                              | 41                              | 41                              |   |
|   | 43                              | 43                              | 43                              |   |
|   | 47                              | 47                              | 47                              |   |
|   | 53                              | 53                              | 53                              |   |
|   | 59                              | 59                              | 59                              |   |
|   | 61                              | 61                              | 61                              |   |
|   | 67                              | 67                              | 67                              |   |
|   | 71                              | 71                              | 71                              |   |
|   | 73                              | 73                              | 73                              |   |
|   | 79                              | 79                              | 79                              |   |
|   | 83                              | 83                              | 83                              |   |
|   | 89                              | 89                              | 89                              |   |
|   | 97                              | 97                              | 97                              |   |
|   |                                 |                                 | I .                             | 1 |

Passed all tests! 🗸

# Question author's solution (Python3):

```
lower = int(input())
upper = int(input())
print("Prime numbers between", lower, "and", upper, "are:")
 2
 4
      for num in range(lower, upper + 1):
    # all prime numbers are greater than 1
 5 •
 6
7 •
           if num > 1:
                 for i in range(2, num):
    if (num % i) == 0:
 8 •
 9 •
10
                              break
                 else:
11 ▼
                       print(num)
12
```

Correct

Mark 1.00 out of 1.00

```
Question 4
Correct
```

Write python code to display the multiplication table of any given number.

Answer: (penalty regime: 0 %)

```
humber = int(input (""))
# We are using "for loop" to iterate the multiplication 10 times
#print ("", number)
for count in range(1, 11):
    print (number, 'x', count, '=', number * count)
```

|   | Input                      | Expected                   | Got                        |   |
|---|----------------------------|----------------------------|----------------------------|---|
| ~ | 13                         | 13                         | 13                         | ~ |
|   | 13 x 1 = 13                | 13 x 1 = 13                | 13 x 1 = 13                |   |
|   | 13 x 2 = 26                | 13 x 2 = 26                | 13 x 2 = 26                |   |
|   | 13 x 3 = 39                | 13 x 3 = 39<br>13 x 4 = 52 | 13 x 3 = 39                |   |
|   | 13 x 4 = 52                |                            | 13 x 4 = 52                |   |
|   | 13 x 5 = 65<br>13 x 6 = 78 | 13 x 5 = 65<br>13 x 6 = 78 | 13 x 5 = 65<br>13 x 6 = 78 |   |
|   |                            |                            |                            |   |
|   |                            |                            |                            |   |
|   |                            | 13 x 8 = 104               | 13 x 8 = 104               |   |
|   | 13 x 9 = 117               | 13 x 9 = 117               | 13 x 9 = 117               |   |
|   | 13 x 10 = 130              | 13 x 10 = 130              | 13 x 10 = 130              |   |
| ~ | 19                         | 19                         | 19                         | ~ |
|   | 19 x 1 = 19                | $19 \times 1 = 19$         | 19 x 1 = 19                |   |
|   | 19 x 2 = 38                | $19 \times 2 = 38$         | 19 x 2 = 38                |   |
|   | 19 x 3 = 57                | $19 \times 3 = 57$         | 19 x 3 = 57                |   |
|   | 19 x 4 = 76                | $19 \times 4 = 76$         | 19 x 4 = 76                |   |
|   | 19 x 5 = 95                | $19 \times 5 = 95$         | 19 x 5 = 95                |   |
|   | 19 x 6 = 114               | $19 \times 6 = 114$        | 19 x 6 = 114               |   |
|   | 19 x 7 = 133               | $19 \times 7 = 133$        | 19 x 7 = 133               |   |
|   | 19 x 8 = 152               | $19 \times 8 = 152$        | 19 x 8 = 152               |   |
|   | 19 x 9 = 171               | $19 \times 9 = 171$        | 19 x 9 = 171               |   |
|   | 19 x 10 = 190              | 19 x 10 = 190              | 19 x 10 = 190              |   |
| ~ | 29                         | 29                         | 29                         | ~ |
|   | 29 x 1 = 29                | $29 \times 1 = 29$         | 29 x 1 = 29                |   |
|   | 29 x 2 = 58                | $29 \times 2 = 58$         | 29 x 2 = 58                |   |
|   | 29 x 3 = 87                | $29 \times 3 = 87$         | 29 x 3 = 87                |   |
|   | 29 x 4 = 116               | 29 x 4 = 116               | 29 x 4 = 116               |   |
|   | 29 x 5 = 145               | $29 \times 5 = 145$        | 29 x 5 = 145               |   |
|   | 29 x 6 = 174               | $29 \times 6 = 174$        | 29 x 6 = 174               |   |
|   | 29 x 7 = 203               | $29 \times 7 = 203$        | 29 x 7 = 203               |   |
|   | 29 x 8 = 232               | $29 \times 8 = 232$        | 29 x 8 = 232               |   |
|   | 29 x 9 = 261               | $29 \times 9 = 261$        | 29 x 9 = 261               |   |
|   | 29 x 10 = 290              | 29 x 10 = 290              | 29 x 10 = 290              |   |

|   |   | _   |   |
|---|---|---|---|
| Input   | Expected  | Got   |   |
|   | 37 x 1 = 37<br>37 x 2 = 74<br>37 x 3 = 111<br>37 x 4 = 148<br>37 x 5 = 185<br>37 x 6 = 222<br>37 x 7 = 259<br>37 x 8 = 296  | 37 x 1 = 37<br>37 x 2 = 74<br>37 x 3 = 111<br>37 x 4 = 148<br>37 x 5 = 185<br>37 x 6 = 222<br>37 x 7 = 259<br>37 x 8 = 296  | ~ |
| 37 x 9 = 333<br>37 x 10 = 370   | $37 \times 9 = 333$<br>$37 \times 10 = 370$   | 37 x 9 = 333<br>37 x 10 = 370   |   |
| 49 49 x 1 = 49 49 x 2 = 98 49 x 3 = 147 49 x 4 = 196 49 x 5 = 245 49 x 6 = 294 49 x 7 = 343 49 x 8 = 392 49 x 9 = 441 49 x 10 = 490 | 49<br>49 x 1 = 49<br>49 x 2 = 98<br>49 x 3 = 147<br>49 x 4 = 196<br>49 x 5 = 245<br>49 x 6 = 294<br>49 x 7 = 343<br>49 x 8 = 392<br>49 x 9 = 441<br>49 x 10 = 490 | 49<br>49 x 1 = 49<br>49 x 2 = 98<br>49 x 3 = 147<br>49 x 4 = 196<br>49 x 5 = 245<br>49 x 6 = 294<br>49 x 7 = 343<br>49 x 8 = 392<br>49 x 9 = 441<br>49 x 10 = 490 | ~ |

Passed all tests! 🗸

# Question author's solution (Python3):

Correct

```
Question 5
Correct
Mark 1.00 out of 1.00
```

Write python code to compute and display the Fibonacci sequence of the given number.

Answer: (penalty regime: 0 %)

```
nterms = int(input())
 3
    n1, n2 = 0, 1
 4
    count = 0
 5
    if nterms <= 0:</pre>
       print("Please enter a positive integer")
 7
 8
 9 v elif nterms == 1:
       print("Fibonacci sequence upto",nterms,":")
10
       print(n1)
11
12
13 v else:
14
       print("Fibonacci sequence:")
15 •
       while count < nterms:</pre>
16
           print(n1)
17
           nth = n1 + n2
18
19
           n1 = n2
20
           n2 = nth
21
           count += 1
```

|   | Input               | Expected            | Got                 |   |  |  |  |  |  |  |
|---|---------------------|---------------------|---------------------|---|--|--|--|--|--|--|
| ~ | 7                   | 7                   | 7                   | ~ |  |  |  |  |  |  |
|   | Fibonacci sequence: | Fibonacci sequence: |                     |   |  |  |  |  |  |  |
|   | 0                   | 0                   | Fibonacci sequence: |   |  |  |  |  |  |  |
|   | 1                   | 1                   | 1                   |   |  |  |  |  |  |  |
|   | 1                   | 1                   | 1                   |   |  |  |  |  |  |  |
|   | 2                   | 2                   | 2                   |   |  |  |  |  |  |  |
|   | 3                   | 3                   | 3                   |   |  |  |  |  |  |  |
|   | 5                   | 5                   | 5                   |   |  |  |  |  |  |  |
|   | 8                   | 8                   | 8                   |   |  |  |  |  |  |  |
| ~ | 19                  | 19                  | 19                  | ~ |  |  |  |  |  |  |
|   | Fibonacci sequence: | Fibonacci sequence: | Fibonacci sequence: |   |  |  |  |  |  |  |
|   | 0                   | 0                   | 0                   |   |  |  |  |  |  |  |
|   | 1                   | 1                   | 1                   |   |  |  |  |  |  |  |
|   | 1                   | 1                   | 1                   |   |  |  |  |  |  |  |
|   | 2                   | 2                   | 2                   |   |  |  |  |  |  |  |
|   | 3                   | 3                   | 3                   |   |  |  |  |  |  |  |
|   | 5                   | 5                   | 5                   |   |  |  |  |  |  |  |
|   | 8                   | 8                   | 8                   |   |  |  |  |  |  |  |
|   | 13                  | 13                  | 13                  |   |  |  |  |  |  |  |
|   | 21                  | 21                  | 21                  |   |  |  |  |  |  |  |
|   | 34                  | 34                  | 34                  |   |  |  |  |  |  |  |
|   | 55                  | 55                  | 55                  |   |  |  |  |  |  |  |
|   | 89                  | 89                  | 89                  |   |  |  |  |  |  |  |
|   | 144                 | 144                 | 144                 |   |  |  |  |  |  |  |
|   | 233                 | 233                 | 233                 |   |  |  |  |  |  |  |
|   | 377                 | 377                 | 377                 |   |  |  |  |  |  |  |
|   | 610                 | 610                 | 610                 |   |  |  |  |  |  |  |
|   | 987                 | 987                 | 987                 |   |  |  |  |  |  |  |
|   | 1597                | 1597                | 1597                |   |  |  |  |  |  |  |
|   | 2584                | 2584                | 2584                |   |  |  |  |  |  |  |

|   | Input               | Expected            | Got                 |  |  |  |  |  |
|---|---------------------|---------------------|---------------------|--|--|--|--|--|
| ~ | 13                  | 13                  | 13                  |  |  |  |  |  |
|   | Fibonacci sequence: | Fibonacci sequence: | Fibonacci sequence: |  |  |  |  |  |
|   | 0                   | 0                   | 0                   |  |  |  |  |  |
|   | 1                   | 1                   | 1                   |  |  |  |  |  |
|   | 1                   | 1                   | 1                   |  |  |  |  |  |
|   | 2                   | 2                   | 2                   |  |  |  |  |  |
|   | 3                   | 3                   | 3                   |  |  |  |  |  |
|   | 5                   | 5                   | 5                   |  |  |  |  |  |
|   | 8                   | 8                   | 8                   |  |  |  |  |  |
|   | 13                  | 13                  | 13                  |  |  |  |  |  |
|   | 21                  | 21                  | 21                  |  |  |  |  |  |
|   | 34                  | 34                  | 34                  |  |  |  |  |  |
|   | 55                  | 55                  | 55                  |  |  |  |  |  |
|   | 89                  | 89                  | 89                  |  |  |  |  |  |
|   | 144                 | 144                 | 144                 |  |  |  |  |  |

Passed all tests! 🗸

# Question author's solution (Python3):

```
nterms = int(input())
    n1, n2 = 0, 1
 2
 3
    count = 0
 4 v if nterms <= 0:
        print("Please enter a positive integer")
 6 v elif nterms == 1:
        print("Fibonacci sequence upto",nterms,":")
print(n1)
 8
 9 v else:
10
        print("Fibonacci sequence:")
        while count < nterms:
    print(n1)</pre>
11 •
12
             nth = n1 + n2
n1 = n2
n2 = nth
13
14
15
16
             count += 1
```

Correct

## Question $\boldsymbol{6}$

Correct

Mark 1.00 out of 1.00

## Write python code to print calendar for any random year.

Answer: (penalty regime: 0 %)

```
import calendar

year = int(input())
month = int(input())
print(calendar.month(year, month))
```

|   | Inp           | ut |    |    |    |    |    | Expected |      |     |     |    |    |    | Got |      |      |     |    |    |    |  |
|---|---------------|----|----|----|----|----|----|----------|------|-----|-----|----|----|----|-----|------|------|-----|----|----|----|--|
| ~ | 2014          |    |    |    |    |    |    |          | 2014 |     |     |    |    |    |     |      | 2014 |     |    |    |    |  |
|   | 11            |    |    |    |    |    |    | 11       |      |     |     |    |    |    | 11  |      |      |     |    |    |    |  |
|   | November 2014 |    |    |    |    |    |    | No۱      | /emb | ber | 201 | L4 |    |    | No۱ | /emb | ber  | 203 | L4 |    |    |  |
|   | Мо            | Tu | We | Th | Fr | Sa | Su | Мо       | Tu   | We  | Th  | Fr | Sa | Su | Мо  | Tu   | We   | Th  | Fr | Sa | Su |  |
|   |               |    |    |    |    | 1  | 2  |          |      |     |     |    | 1  | 2  |     |      |      |     |    | 1  | 2  |  |
|   | 3             | 4  | 5  | 6  | 7  | 8  | 9  | 3        | 4    | 5   | 6   | 7  | 8  | 9  | 3   | 4    | 5    | 6   | 7  | 8  | 9  |  |
|   | 10            | 11 | 12 | 13 | 14 | 15 | 16 | 10       | 11   | 12  | 13  | 14 | 15 | 16 | 10  | 11   | 12   | 13  | 14 | 15 | 16 |  |
|   | 17            | 18 | 19 | 20 | 21 | 22 | 23 | 17       | 18   | 19  | 20  | 21 | 22 | 23 | 17  | 18   | 19   | 20  | 21 | 22 | 23 |  |
|   | 24            | 25 | 26 | 27 | 28 | 29 | 30 | 24       | 25   | 26  | 27  | 28 | 29 | 30 | 24  | 25   | 26   | 27  | 28 | 29 | 30 |  |

Passed all tests! 🗸

# Question author's solution (Python3):

```
1 | import calendar
2 | yy = int(input())
3 | mm = int(input())
4 | print(calendar.month(yy, mm))
```

#### Correct

Marks for this submission: 1.00/1.00.

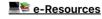
#### ◀ 28.12.2021 Ex 3: Learning Square Root & Swap function

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