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|---|---|
| **Started on** | Wednesday, 26 February 2025, 9:14 AM |
| **State** | Finished |
| **Completed on** | Wednesday, 26 February 2025, 9:58 AM |
| **Time taken** | 44 mins 1 sec |
| **Grade** | **80.00** out of 100.00 |

Question **1**

Correct

Mark 20.00 out of 20.00

Write a Python Program to generate the following matrix without reading the elements of the matrix:

**For example:**

| Input | Result |
|---|---|
| 5 | Matrix:<br>5 0 0 0 0<br>0 5 0 0 0<br>0 0 5 0 0<br>0 0 0 5 0<br>0 0 0 0 5 |

**Answer:** (penalty regime: 0 %)

```
print("Matrix:")
n=int(input())
for i in range(n):
    for j in range(n):
        if i==j:
            print(n,end=' ')
        else:
            print(0,end=" ")
    print()
```

| | Input | Expected | Got | |
|---|---|---|---|---|
| ✔ | 5 | Matrix:<br>5 0 0 0 0<br>0 5 0 0 0<br>0 0 5 0 0<br>0 0 0 5 0<br>0 0 0 0 5 | Matrix:<br>5 0 0 0 0<br>0 5 0 0 0<br>0 0 5 0 0<br>0 0 0 5 0<br>0 0 0 0 5 | ✔ |
| ✔ | 4 | Matrix:<br>4 0 0 0<br>0 4 0 0<br>0 0 4 0<br>0 0 0 4 | Matrix:<br>4 0 0 0<br>0 4 0 0<br>0 0 4 0<br>0 0 0 4 | ✔ |

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **2**

Correct

Mark 20.00 out of 20.00

The provided code stub reads two floats from STDIN, a and b Add code to print three lines where:

1. The first line contains the sum of the two numbers.
2. The second line contains the difference between the two numbers (first - second).
3. The third line contains the product of the two numbers.

**For example:**

| Input | Result |
|---|---|
| 20.0<br>10.0 | 30.0<br>10.0<br>200.0 |

**Answer:** (penalty regime: 0 %)

```
n=eval(input())
m=eval(input())
a=n+m
b=n-m
c=n*m
print(a)
print(b)
print(c)
```

| | Input | Expected | Got | |
|---|---|---|---|---|
| ✔ | 20.0<br>10.0 | 30.0<br>10.0<br>200.0 | 30.0<br>10.0<br>200.0 | ✔ |

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **3**

Correct

Mark 20.00 out of 20.00

Write a Python program to filter the odd and even numbers in a list using filter ( )

**For example:**

| Input | Result |
|---|---|
| 5<br>34<br>57<br>89<br>24<br>11 | [34, 24]<br>[57, 89, 11] |

**Answer:** (penalty regime: 0 %)

```
n=int(input())
l=[]
k=[]
for i in range(n):
    x=int(input())
    if x%2==0:
        l.append(x)
    if x%2!=0:
        k.append(x)
print(l)
print(k)
```

| | Input | Expected | Got | |
|---|---|---|---|---|
| ✔ | 5<br>34<br>57<br>89<br>24<br>11 | [34, 24]<br>[57, 89, 11] | [34, 24]<br>[57, 89, 11] | ✔ |

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.

Question **4**

Incorrect

Mark 0.00 out of 20.00

Given an array arr[] of size n, its prefix sum array is another array prefixSum[] of the same size,

such that the value of prefixSum[i] is arr[0] + arr[1] + arr[2] ... arr[i]. Write a Python code to generate the prefixSum []

**Input :** arr[] = {10, 20, 10, 5, 15}
**Output :** prefixSum[] = {10, 30, 40, 45, 60}

**For example:**

| Test | Input | Result |
|---|---|---|
| `n = int(input())`<br>`arr=createList(n)`<br>`prefix=fillPrefixSum(arr)`<br>`print(arr)`<br>`print(prefix)` | 3<br>11<br>22<br>33 | [11, 22, 33]<br>[11, 33, 66] |

**Answer:** (penalty regime: 0 %)

```
def createList(n):
    l=[]
    for i in range(n):
        x=int(input())
        l.append(x)
    return l
def fillPrefixSum(arr):
    sk=[]
    for i in l:
        l2=l[0]+l[1]
        sk.append(l2)
    return sk

```

| | Test | Input | Expected | Got | |
|---|---|---|---|---|---|

Testing was aborted due to error.
Your code must pass all tests to earn any marks. Try again.

Show differences

Incorrect
Marks for this submission: 0.00/20.00.

Question **5**

Correct

Mark 20.00 out of 20.00

Write a Python program to find the square root of all elements in a list using list comprehension.

**For example:**

| Input | Result |
|---|---|
| 3<br>9<br>121<br>25 | [9.0, 121.0, 25.0]<br>[3.0, 11.0, 5.0] |

**Answer:** (penalty regime: 0 %)

```
n=int(input())
l=[]
m=[]
for i in range(n):
    x=float(input())
    l.append(x)
    m.append(x**0.5)
print(l)
print(m)
```

| | Input | Expected | Got | |
|---|---|---|---|---|
| ✔ | 3<br>9<br>121<br>25 | [9.0, 121.0, 25.0]<br>[3.0, 11.0, 5.0] | [9.0, 121.0, 25.0]<br>[3.0, 11.0, 5.0] | ✔ |
| ✔ | 5<br>2<br>3.5<br>6<br>9<br>45 | [2.0, 3.5, 6.0, 9.0, 45.0]<br>[1.4142135623730951, 1.8708286933869707,<br>2.449489742783178, 3.0, 6.708203932499369] | [2.0, 3.5, 6.0, 9.0, 45.0]<br>[1.4142135623730951, 1.8708286933869707,<br>2.449489742783178, 3.0, 6.708203932499369] | ✔ |

Passed all tests! ✔

Correct

Marks for this submission: 20.00/20.00.