Task 1

Q2. Write a program which will find all such numbers which are divisible by 7 but are not a multiple of 5, between 2000 and 3200 (both included). The numbers obtained should be printed in a comma-separated sequence on a single line.

In [9]:
```
div_num = []

for num in range(2000,3201):
    if (num % 7 == 0) and (num % 5 != 0):
        div_num.append(str(num))
else:
    print(str(div_num) + ",")
```

```
['2002', '2009', '2016', '2023', '2037', '2044', '2051', '2058', '2072', '2079', '2086', '209
3', '2107', '2114', '2121', '2128', '2142', '2149', '2156', '2163', '2177', '2184', '2191',
'2198', '2212', '2219', '2226', '2233', '2247', '2254', '2261', '2268', '2282', '2289', '229
6', '2303', '2317', '2324', '2331', '2338', '2352', '2359', '2366', '2373', '2387', '2394',
'2401', '2408', '2422', '2429', '2436', '2443', '2457', '2464', '2471', '2478', '2492', '249
9', '2506', '2513', '2527', '2534', '2541', '2548', '2562', '2569', '2576', '2583', '2597',
'2604', '2611', '2618', '2632', '2639', '2646', '2653', '2667', '2674', '2681', '2688', '270
2', '2709', '2716', '2723', '2737', '2744', '2751', '2758', '2772', '2779', '2786', '2793',
'2807', '2814', '2821', '2828', '2842', '2849', '2856', '2863', '2877', '2884', '2891', '289
8', '2912', '2919', '2926', '2933', '2947', '2954', '2961', '2968', '2982', '2989', '2996',
'3003', '3017', '3024', '3031', '3038', '3052', '3059', '3066', '3073', '3087', '3094', '310
1', '3108', '3122', '3129', '3136', '3143', '3157', '3164', '3171', '3178', '3192', '3199'],
```

Q3. Write a Python program to accept the user's first and last name and then getting them printed in the the reverse order with a space between first name and last name.

In [9]:
```
first_name = input("Please state your first name:")
last_name = input("Please state your last name:")
reverse_name = last_name[::-1] + " " + first_name[::-1]

print(reverse_name)
```

```
Please state your first name:yuna
Please state your last name:kim
mik anuy
```

Q4. Write a Python program to find the volume of a sphere with diameter 12 cm. Formula: V=4/3 π r^3

In [14]:
```
import math

d = 12
r = diameter/2
vol_sph = 4/3 * math.pi * r ** 3

print("The voloume of a sphere with a diameter of 12cm is " + str(vol_sph) + ".")
```

```
The voloume of a sphere with a diameter of 12cm is 904.7786842338603.
```

Task 2

Q1. Write a program which accepts a sequence of comma-separated numbers from console and generate a list.

In [27]:
```
numbers = input("Please enter a sequence of numbers separated by commas:")

print(numbers.split(","))
```

```
Please enter a sequence of numbers separated by commas:1,2,3,4,5
['1', '2', '3', '4', '5']
```

Q2. Create the below pattern using nested for loop in Python.

*

- *

- *
- *
-

In [47]:
```
for i in range(1,5):
    print("* " * i)

for i in range(5,0,-1):
    print("* " * i)
```

```
*
* *
* * *
* * * *
* * * * *
* * * *
* * *
* *
*
```

Q3. Write a Python program to reverse a word after accepting the input from the user.
Sample Output: Input word: AcadGild Output: dilGdacA

In [1]:
```
input_word = input("Input word: ")

print("Output word: " + input_word[::-1])
```

```
Input word: AcadGild
Output word: dliGdacA
```

Q4. Write a Python Program to print the given string in the format specified in the sample output.
WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a SOVEREIGN, SOCIALIST, SECULAR, DEMOCRATIC REPUBLIC and to secure to all its citizens

Sample Output: WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a SOVEREIGN, ! SOCIALIST, SECULAR, DEMOCRATIC REPUBLIC and to secure to all its citizens

In [6]:
```
string = "WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a SOVER
EIGN, {} SOCIALIST, SECULAR, DEMOCRATIC REPUBLIC and to secure to all its citizens "

print(string.format("!"))
```

```
WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a SOVEREIGN, ! SOC
IALIST, SECULAR, DEMOCRATIC REPUBLIC and to secure to all its citizens
```