

1. Write a program that will find all such numbers that 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.

```
# Initialize an empty list to store the numbers

numbers = []

# Iterate through the range from 2000 to 3200 (both included)
for i in range(2000, 3201):

    # Check if the number is divisible by 7 but not a multiple of 5
    if i % 7 == 0 and i % 5 != 0:

        numbers.append(str(i)) # Add the number to the list as a string

# Join the numbers in the list with commas and print the result
print(','.join(numbers))
```

2. Write a program that can compute the factorial of given numbers. The results should be printed in a comma-separated sequence on a single line.

```
def factorial(n):

    if n == 0:

        return 1

    else:

        return n * factorial(n-1)

# Input numbers for which factorial needs to be computed
numbers = [5, 8, 10, 15]

# Compute factorial for each number and store the results in a list
factorials = [str(factorial(num)) for num in numbers]
```

Print the results in a comma-separated sequence on a single line

```
print(','.join(factorials))
```

3. With a given integral number n , write a program to generate a dictionary that contains $(i, i*i)$ such that i is an integral number between 1 and n (both included). and then the program should print the dictionary.

```
def generate_squared_dictionary(n):  
    squared_dict = {} # Initialize an empty dictionary  
    for i in range(1, n+1): # Loop through numbers from 1 to n (inclusive)  
        squared_dict[i] = i*i # Add (i, i*i) pair to the dictionary  
    return squared_dict
```

Input number 'n'

```
n = 5
```

Generate the squared dictionary

```
result_dict = generate_squared_dictionary(n)
```

Print the generated dictionary

```
print(result_dict)
```

4. Write a program that accepts a sequence of comma-separated numbers from the console and generates a list and a tuple that contains every number.

Suppose the following input is supplied to the program:

```
34,67,55,33,12,98
```

Then, the output should be:

```
['34', '67', '55', '33', '12', '98']
```

```
('34', '67', '55', '33', '12', '98')
```

Accept input from the console

```
input_str = input("Enter a sequence of comma-separated numbers: ")
```

```
# Split the input string by commas to get individual numbers as strings
```

```
numbers_list = input_str.split(',') 
```

```
# Convert the list of strings to a tuple
```

```
numbers_tuple = tuple(numbers_list)
```

```
# Print the list and tuple
```

```
print(numbers_list)
```

```
print(numbers_tuple)
```

```
['34', '67', '55', '33', '12', '98']
```

```
('34', '67', '55', '33', '12', '98')
```