```python
# Task 1: Write a Python program to find the largest of three numbers.
try:
    userinput = input('Please enter three numbers using a space.(ex:12
11 10): ')
    user_list = list(map(float, userinput.split()))
    for i in user_list:
        if type(i) in [float, int]:
            if i >=max(user_list):
                print(f'max num is {i} out of {user_list}')
        else:
            print('Please enter numbers only')
except ValueError:
    print('Please enter numbers only')
```

```
Please enter three numbers using a space.(ex:12 11 10):  12 11 10

max num is 12.0 out of [12.0, 11.0, 10.0]
```

```python
# Task 2: Create a program that checks if a number is even or odd.
userinput = (input('Please enter numbers or number to find odd and
even: '))
userinput1 = list(map(int, userinput.split())) # [11, 12, 10]
even = []
odd = []
for i in userinput1:
    if i % 2== 0:
        even.append(i)
    else:
        odd.append(i)

print(f'even number or numbers are {even}')
print(f'odd number or numbers are {odd}')
```

```
Please enter numbers or number to find odd and even:  11 12 10

even number or numbers are [12, 10]
odd number or numbers are [11]
```

```python
""" Task 3: Write a program that prints numbers from 1 to 100 but
skips numbers
divisible by 7."""
for i in range(1, 101):
    if i % 7 ==0:
        continue
    else:
        print(i)
```

```
1
2
3
4
5
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8
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96
97
99
100
```

```python
# Task 4: Write a program to print the multiplication table of a given number.
userinput = int(input('Enter your number to find the multiplication table: '))
till_what_number = int(input('Till what number you want to find the multiplication table?: '))
for i in range(0, till_what_number + 1):
    print(i * userinput)
```

```
Enter your number to find the multiplication table:  4
Till what number you want to find the multiplication table?:  5
```

```
0
4
8
12
16
20
```

```
""" Task 5: Write a program that uses a nested loop to print a right-angled triangle
pattern of stars based on user input."""

rows = int(input('Enter the number of rows for the triangle: '))
for i in range(1, rows + 1):
    for j in range(i):
        print('*', end='')
    print()
```

```
Enter the number of rows for the triangle:  5
```

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

```
""" Task 6: Create a Python program that prints the following pattern using nested
loops: 1
12
123
1234 """

rows = 4

for i in range(1, rows + 1): #(1, 5) # 1 ## 2
    for j in range(1, i+1): #(1,2) # 1 ## (1,3) ##
        print(j, end='') # 1 ## 1
    print()
```

```
1
12
123
1234
```

```
""" Task 7: Create a Python program to check if a character entered by the user is a
```

```
vowel or consonant."""

userinput = input('Enter your character: ') #R
vowels = 'aeiou'
for i in userinput: #R
    if i.lower() in vowels:
        print(f'{i} is a  vowel')
    else:
        print(f'{i} is consonant')
```

```
Enter your character:  R
```

```
R is consonant
```

```
""" Task 8. Write a Python program that generates a diamond pattern of stars
For n = 5, the output should look like:
*
***
*****
*******
*********
******* """
n = 5

for i in range(1, n + 1):
    print(' ' * (n - i) + '*' * (2 * i - 1))


for i in range(n - 1, 0, -1):
    print(' ' * (n - i) + '*' * (2 * i - 1))
```

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

```
# Task 9: Write a Python program to reverse the digits of a given number.
userinput = int(input('Enter your number to reverse it: ')) #1234
num = 0
reverse_num = 0
while userinput > num:   # 1234 >= 0 ## 123 >=0  ### 12 >= 0 #### 1>=0 #### 0
```

```
    num1 = userinput % 10  # num1 = 1234 % 10 = 4  ## 123 % 10 = 3
### 12 % 10 = 2  #### 1 % 10 = 1
    reverse_num = reverse_num * 10 + num1 # 0 * 10 + 4 = 4 ## 4 * 10 +
3 = 43 ### 43 * 10 + 2 = 432 #### 432 * 10 + 1 = 4320 + 1 = 4321
    userinput = userinput // 10  #1234 // 10 = 123  ## 123 // 10 = 12
### 12 // 1  #### 1 // 10 = 0 ## 0 // 10 = 0

print(reverse_num)
```

```
Enter your number to reverse it:  1234

4321
```

```
""" Task 10. Create a Python program that generates the following
pyramid pattern:
1
121
12321
1234321
123454321
"""
rows = 5

for i in range(1, rows + 1):

    for j in range(1, i + 1):
        print(j, end='')


    for j in range(i - 1, 0, -1):
        print(j, end='')

    print()
```

```
1
121
12321
1234321
123454321
```