Python

1. WAP to input 2 numbers and check whether the first is divisible by the second and print true or false depending on the divisibility.

2. In the palindrome example, make the code case insensitive.
    i.e. **N**ama**n** should also be treated as a palindrome (**HINT:** first convert to either upper or lower case).

3. WAP to input the sides of a triangle and print whether equilateral(all sides equal), isosceles (2 sides equal), or scalene (no sides equal).

4. WAP to input a number and print if it is even or odd.

5. WAP to input age and print the respective text depending on the age ranges as present in the table.

Age	Text to be displayed
0-12	Child
13-17	Teen
18-50	Adult
51-100	Senior Citizen
age > 100	Contratulations

6. WAP to input year (check if user enters valid year. Should be 4-digit number and should not be negative) and print whether leap year or not. (If really interested in why you also have to check the divisibility by 400 just google the exact time it takes for the earth to revolve around the sub)

7. WAP to input a string and convert it to Upper Case if number of characters is odd and convert to lower case otherwise.

8. WAP to input a string and print **Veg** if the string doesn't contain the word egg. Otherwise print **Non-Veg**. As usual eggs can be both big and small.

9. Give output of:

```
if not 1:
    print("False")
else:
    print("True")
```

```
if 1:
    print("True")
else:
    print("False")
```

```
if 'a' > 'A':                    a = [1,2,3,4]
    print('Weird !!')            if 1 > 1:
else:                                a = a[::-1]
    print('Makes Sense')         else:
                                     a = a[-1::-1]
                                 print(a)
```

10. WAP to input marks in 5 subjects and print the grade as per following logic:

   % between 90-100 Grade-A

   % between 80 - 89 Grade-B

   % between 60 - 79 Grade-C

   % < 60   Grade-F

11. WAP to input age and salary and calculate Tax as per tax rates if following table:

Salary Range	Age < 60	Age >= 60
0-2,50,000	0	0
2,50,001-5,00,000	5%	3%
5,00,001-10,00,000	10%	8%
Salary>10,00,001	15%	12%

12. Try each of the below statements separately (remember difference between statement and expression) on the python interpreter and guess the output before trying:

```
print( 20 if not 1 == 1 else 10)
print( 30 if not 1 == 1 else 20 if 'a' < 'A' else 10)
print( 40 if not 1 == 1 else 30 if 'a' < 'A' else 20 if '' else 10)
print( 'No' if not 1 == 1 else ('No' if 'a' < 'A' else ('OMG' if 'oh!!' else 'No')))
```

13. WAF: bmi() that takes the weight in kg and height in cm of a person, calculates and returns the BMI.
    Write code that calls this function after taking height and weight as inputs and then prints underweight, normal, overweight or obese depending on the value of BMI.
    Refer this link for the ranges:
        https://en.wikipedia.org/wiki/Body_mass_index

14. Take input of age of 3 people by user and determine oldest and youngest among them.

15. WAP to input a number and check if number is divisible by both 5 and 7.