**1. Write a Python program to find those numbers which are divisible by 7 and multiple of 5, between 1500 and 2700 (both included)**

for i in range(1500,2701):

if i%7==0 and i%5==0:

print(" ",i)

**2. Write a Python program that prints all the numbers from 0 to 6 except 3 and 6.**

**Note : Use 'continue' statement.**

**Expected Output : 0 1 2 4 5**

for x in range(6):

if (x == 3 or x == 6):

continue

print(x, end=' ')

print("\n")

**3. Write a Python program which iterates the integers from 1 to 50. For multiples of three print "Fizz" instead of the number and for the multiples of five print "Buzz". For numbers which are multiples of both three and five print "FizzBuzz".**

**Sample Output :**

fizzbuzz

1

2

fizz

4

Buzz

for fizzbuzz in range(6):

if fizzbuzz % 3 == 0 and fizzbuzz % 5 == 0:

print("fizzbuzz")

continue

elif fizzbuzz % 3 == 0:

print("fizz")

continue

elif fizzbuzz % 5 == 0:

print("buzz")

continue

print(fizzbuzz)

**4. Write a Python program to check a triangle is equilateral, isosceles or scalene.**

**Note :**

**An equilateral triangle is a triangle in which all three sides are equal.**

**A scalene triangle is a triangle that has three unequal sides.**

**An isosceles triangle is a triangle with two equal sides.**

**Expected Output:**

**Input lengths of the triangle sides:**

**x: 6**

**y: 8**

**z: 12**

**Scalene triangle**

print("Input lengths of the triangle sides: ")

x = int(input("x: "))

y = int(input("y: "))

z = int(input("z: "))

if x == y == z:

print("Equilateral triangle")

elif x==y or y==z or z==x:

print("isosceles triangle")

else:

print("Scalene triangle")

**5. Write a Python program to calculate the sum and average of n integer numbers (input from the user). Input 0 to finish**

print("Input some integers to calculate their sum and average. Input 0 to exit.")

count = 0

sum = 0.0

number = 1

while number != 0:

number = int(input(""))

sum = sum + number

count += 1

if count == 0:

print("Input some numbers")

else:

print("sum of the above numbers are:",sum)

print("Average and Sum of the above numbers are: ", sum / (count - 1))

**6. Write a Python program to construct the following pattern, using a nested loop number.**

**1**

**22**

**333**

**4444**

**55555**

**666666**

**7777777**

**88888888**

**999999999**

n=10;

for i in range(n):

print(str(i) \*i)

**7. Write a Python program that counts the number of elements within a list that are greater than 30.**

list=[]

count=0

n=int(input("Enter the number of elements :"))

for i in range(0,n):

ele = int(input())

list.append(ele)

if ele>30:

count=count+1

print(count)

**8. Take values of length and breadth of a rectangle from user and check if it is square or not.**

a=int(input("enter the length of the figure"))

b=int(input("enter the breadth of the figure"))

if a==b:

print("the figure is a square")

else:

print("the figure is not a square")

**9. A shop will give discount of 10% if the cost of purchased quantity is more than 1000.**

**Ask user for quantity**

**Suppose, one unit will cost 100.**

**Judge and print total cost for user.**

price=int(input("enter price"))

qty=int(input("enter quantity"))

amt=price\*qty

if amt>1000:

print ("10% discount applicable")

discount=amt\*10/100

amt=amt-discount

print ("amount payable:",amt)

else:

print("amount payable:",amt)

**10. A company decided to give bonus of 5% to employee if his/her year of service is more than 5 years.**

**Ask user for their salary and year of service and print the net bonus amount.**

salary = eval(input("Enter your salary:"))

service\_yrs = eval(input("Enter Years of service:"))

if service\_yrs > 5:

print("Yours salary(+Bonus) = ",salary + (salary)\*5/100)

else:

print("You are not eligible for bonus as you have less service years.")

**11. A school has following rules for grading system:**

**a. Below 25 - F**

**b. 25 to 45 - E**

**c. 45 to 50 - D**

**d. 50 to 60 - C**

**e. 60 to 80 - B**

**f. Above 80 - A**

**Ask user to enter marks and print the corresponding grade.**

score = input("Enter your score")

score = int(score)

if score < 25:

print("F")

elif score >= 25 and score < 45:

print("E")

elif score >= 45 and score < 50:

print("D")

elif score >= 50 and score < 60:

print("C")

elif score >= 60 and score < 80:

print("B")

else:

print("A")

**12. A student will not be allowed to sit in exam if his/her attendence is less than 75%.**

**Take following input from user**

**Number of classes held**

**Number of classes attended.**

**And print**

**percentage of class attended**

**Is student is allowed to sit in exam or not.**

a=int(input("Number of classes held:"))

b=int(input("Number of classes attended:"))

percentage=b/a\*100

if percentage>=75:

print("The student is allowed to sit in the exam hall")

else:

print("The student is not allowed to sit in the exam hall")

**13. Take 10 integers from keyboard using loop and print their average value on the screen.**

total\_sum = 0

for n in range(10):

num = float(input('Enter number: '))

total\_sum += num

avg = total\_sum / 10

print('Average of numbers = %0.2f' %avg)

**14. Print multiplication table of 24, 50 and 29 using loop.**

for i in [24,29,50]:

print(f"Multiplication table of {i}:")

for j in range(1,11):

print(f"{i} \* {j} = {i\*j}")

print()

**15. Take integer inputs from user until he/she presses q ( Ask to press q to quit after every integer input ). Print average and product of all numbers.**

summ = 0

count = 0

product=1

raw\_input=input("Press Q to Quit")

while raw\_input != 'q':

product=product\*int(raw\_input)

summ = summ+int(raw\_input)

count=count+1

raw\_input = input("Press Q to Quit")

print("avreage",summ/count)

print("Product",product)

**16. Take inputs from user to make a list. Again take one input from user and search it in the list and delete that element, if found. Iterate over list using for loop.**

numbers = []

x = int(input("Enter number of elements in list"))

print("Enter the elements")

for i in range(x):

numbers.append(int(input()))

Num = int(input("The number to be deleted is "))

i = 0

for element in numbers:

if (element == Num):

numbers.pop(i)

x = x - 1

i = i - 1

i = i + 1

print(numbers)

**17. Using range(1,101), make three list,**

**one containing all even numbers**

**one containing all odd numbers**

**One containing only prime numbers..**

even=[]

odd=[]

prime=[]

for num in range(1,101):

if num % 2 == 0:

even.append(num)

else:

odd.append(num)

for i in range(2, (num//2+1)):

if(num % i == 0):

break

else :

prime.append(num)

print(even)

print(odd)

print(prime)

**18. From the two list obtained in previous question, make new lists, containing only numbers which are divisible by 4, 6, 8, 10, 3, 5, 7 and 9 in separate lists.**

by=[4,6,8,10,3,5,7,9]

for i in range(len(by)):

print("The Even Number divisible by",by[i])

for x in range(len(even)):

if (even[x]%by[i]==0):

print(even[x]," ")

for i in range(len(by)):

print("The Even Number divisible by",by[i])

for x in range(len(odd)):

if (odd[x]%by[i]==0):

print(odd[x]," ")

**19. From a list containing ints, strings and floats, make three lists to store them separately**

w=[4, 5, 1.1, 'abcd', 3.4, 'xyz', 2]

x=[]

y=[]

z=[]

for i in w:

if type(i)==int:

x.append(i)

elif type(i)==float:

y.append(i)

elif type(i)==str:

z.append(i)

print(x)

print(y)

print(z)

**20. You are given with a list of integer elements. Make a new list which will store square of elements of previous list.**

def square(list):

ret = []

for i in list:

ret.append(i \*\* 2)

return ret

list=[]

n=int(input("Enter the number of elements :"))

for i in range(0,n):

ele = int(input())

list.append(ele)

print(square(list))