1. Write a program that displays a joke. But display the punchline only when the user presses enter key.
(Hint: You may use input ())

```
joke = input("What do you call a broken can opener?")

if joke == "":
    print("A can’t opener")
```

2. Write a program that generates the following output:

5

10

9

Assign value 5 to a variable using assignment operator (=)

Multiply it with 2 to generate 10 and subtract 1 to generate 9.

```
a = 5

b = a * 2

c = b - 1


list = [a, b, c]

for item in list:

    print(item)


# Alternative Method

# print(a)

# print(b)

# print(c)
```

3. Modify above program to print output as 5@10@9.

```
a = 5
b = a * 2
c = b - 1
print(str(a) + "@" + str(b) + "@" + str(c))
```

4. Write a Python program that accepts radius of a circle and prints its area.

```
radius = int(input("Enter the radius of the circle: \n"))

area_of_circle = 3.142 * radius ** 2

print("Area of the circle is " + str(area_of_circle) + " square units")
```

5. Write Python program that accepts marks in 5 subjects and outputs average marks.

```
Maths_mark = int(input("Enter your Maths mark: \n"))

English_mark = int(input("Enter your English mark: \n"))

Physics_mark = int(input("Enter your Physics mark: \n"))

Chemistry_mark = int(input("Enter your Chemistry mark: \n"))

French_math = int(input("Enter your French mark: \n"))

Number_of_subjects = 5

Sum = Maths_mark + English_mark + Physics_mark + Chemistry_mark
+ French_math

Average = Sum / Number_of_subjects

print(str(Average) + " is the average of the 5 subjects")
```

6. Write a short program that asks for your height in centimetres and then converts your height to feet and inches. (1 foot = 12 inches, 1 inch = 2.54 cm).

```
height_in_cm = int(input("Enter your height(in cm): \n"))

height_in_ft = height_in_cm * 12

print("Your height in feet is " + str(height_in_ft))

height_in_inches = height_in_cm * 2.54

print("Your height in inches is " + str(height_in_inches))
```

7. Write a program to read a number n and print n^2 , n^3 and n^a.

```
number = int(input("Enter a number: \n"))

k = int(input("Enter an exponent: \n"))

print(number ** 2, number ** 3, number ** k)
```

8. Write a program to find area of a triangle.

```
triangle_height = int(input("Enter the height of the traingle: \n"))
triangle_base = int(input("Enter the base of the traingle: \n"))

triangle_area = 0.5 * triangle_base * triangle_height

print("The Area of the triangle is " + str(triangle_area) + " square units")
```

9. Write a program to compute simple interest and compound interest.

```
# Reading Principle amount, rate and time
principle = float(input("Enter amount: \n"))
time = float(input("Enter time: \n"))
rate = float(input("Enter rate: \n"))

# Calculation
simple_interest = (principle *time *rate /100)
compound_interest = principle * ( (1+rate/100)**time - 1)

# Displaying result
print("Simle interest is : %f " % (simple_interest))
print("compound interest is: %f" % (compound_interest))
```

10. Write a program to input a number and print its first five multiples.

```
num = int(input("Enter a number: \n"))


print("First five multiples of", num,"are")
print(num, num * 2,num * 3,num * 4, num * 5)
```

11. Write a program to read details like name, class, age of a student and then print the details firstly in same line and then separate lines. Make sure to have two blank lines in these two different types of prints.

```
name = str(input("Enter your name: \n"))
Class = input("Enter your class: \n")
age_of_student = int(input("Enter your age: \n"))
# Printing the details in the same line
print(name, Class, age_of_student)
# Printing the details on different lines
# print(name,"\n", Class,"\n",age_of_student)
# Alternative
List_of_details = [name, Class, age_of_student]
for detail in List_of_details:
    print(detail)
```

12. Write a to input a single digit(n) and print a 3-digit number created as e.g., if you input 7, then it should print 789. Assume that the input digit is in range 1-7.

```
digit = int(input("Enter a single digit(in range of 1-7): \n"))
factorial = digit * (digit + 1) * (digit + 2)
if digit in range(8):
    print(factorial)
else:
    print("Digit must be in range of 1-7!")
```

13. Write a program to read three numbers in three variables and swap first two variables with the sums of first and second, second and third numbers respectively.

```
x = int(input("Enter first number: \n"))
y = int(input("Enter second number: \n"))
z = int(input("Enter third number: \n"))
# Swapping the variables
x, y = x+y, y+z
print(x, y)
```