1. To accept an object mass in kilograms and velocity in meters per second and display its momentum.Momentum is calculated as e=mc where m is mass of the object amd c is its velocity

```python
In [7]:  mass=float(input("Enter mass in kilograms: "))
         velocity = float(input("Enter velocity in meters per second: "))
         momentum = mass*velocity
         print(f"The momentum of the object is: {momentum}")
```

```
The momentum of the object is: 225.0
```

2.Write a Pyton program for the following conditions. If n is single digit print square of it. if n is two digit print squareroot of it. If n is three digit print cube root of it.

```python
In [6]:  import math
         n=int(input("Enter a number: "))
         if 0<=n<10:
             print(f"Square of {n}: {n**2}")
         elif 10<=n<100:
             print(f"Square root of {n} :{math.sqrt(n):.2f}")
         elif 100<= n<1000:
             print(f"Cube root of {n}: {n**(1/3):.2f}")
         else:
             print("Please enter a number between 0 and 999.")
```

```
Square root of 25 :5.00
```

3. Read the birth date and salary in rupees of employees .Perform data transformation for birthdate to age and also salary which is in rupees to salary in dollars using functions.

```python
In [15]:  from datetime import datetime
          def calculate_age(birthdate):
              today = datetime.now()
              birthdate = datetime.strptime(birthdate, "%Y-%m-%d")
```

```
        return today.year - birthdate.year - ((today.month, today.day) < (birthdate.mo

def salary_in_dollars(salary_in_rupees, conversion_rate=87.56):
    return salary_in_rupees/conversion_rate

birthdate = input("Enter birthdate (YYYY-MM-DD): ")
salary = float(input("Enter salary in rupees: "))

age = calculate_age(birthdate)
salary_usd = salary_in_dollars(salary)

print(f"Age: {age} years")
print(f"Salary in USD: ${salary_usd:.2f}")
```

```
Age: 18 years
Salary in USD: $114.21
```

4 Print the reverse number of a given number

In [18]:
```
number=int(input("Enter a number: "))
reverse_number=int(str(number)[::-1])
print(f"Reversed number : {reverse_number}")
```

```
Reversed number : 2359
```

5. Print multiplacation table of number n

In [19]:
```
n=int (input("ENter a number : "))
for i in range (1,11):
  print(f"{n}*{i}={n*i}")
```

```
10*1=10
10*2=20
10*3=30
10*4=40
10*5=50
10*6=60
10*7=70
10*8=80
10*9=90
10*10=100
```

6. To accept students five courses marks and compute his/her result. Student is passing if he/she scores marks equal to and above 40 in each course. If student