aditya1.py - C:/Users/Dell/AppData/Local/Programs/Python/Python313/aditya1.py (3.13.1)

File Edit Format Run Options Window Help

```
# 1. Calculate Momentum

m = float(input("Enter mass (in kg): "))
v = float(input("Enter velocity (in m/s): "))

c = m * v

print("Momentum (c) =", c, "kg·m/s")
```

Ln: 9 Col: 0

IDLE Shell 3.13.1

File Edit Shell Debug Options Window Help

```
Python 3.13.1 (tags/v3.13.1:0671451, Dec  3 2024, 19:06:28) [MSC v.1942 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/Dell/AppData/Local/Programs/Python/Python313/aditya1.py ==
Enter mass (in kg): 23
Enter velocity (in m/s): 12
Momentum (c) = 276.0 kg·m/s
>>>
```

Ln: 8 Col: 0

*aditya1.py - C:/Users/Dell/AppData/Local/Programs/Python/Python313/aditya1.py (3.13.1)*

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```
# 2. Check number type and print square/cube root

import math

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

if 10 <= abs(n) <= 99:
    print("Two-digit number")
    print("Square root =", math.sqrt(abs(n)))
elif 100 <= abs(n) <= 999:
    print("Three-digit number")
    print("Cube root =", abs(n) ** (1/3))
else:
    print("Number is not two-digit or three-digit")
```

Ln: 15 Col: 0

IDLE Shell 3.13.1

File Edit Shell Debug Options Window Help

```
Python 3.13.1 (tags/v3.13.1:0671451, Dec  3 2024, 19:06:28) [MSC v.1942 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/Dell/AppData/Local/Programs/Python/Python313/aditya1.py ==
Enter mass (in kg): 23
Enter velocity (in m/s): 12
Momentum (c) = 276.0 kg·m/s
>>>
========== RESTART: C:/Users/Dell/AppData/Local/Programs/Python/Python313/aditya1.py ==========
Enter a number: 34
Two-digit number
Square root = 5.830951894845301
>>>
```

Ln: 13 Col: 0

*aditya1.py - C:/Users/Dell/AppData/Local/Programs/Python/Python313/aditya1.py (3.13.1)*

File Edit Format Run Options Window Help

```python
# 3. Data transformation

from datetime import datetime

# Age calculation
birth_year = int(input("Enter your birth year (YYYY): "))
current_year = datetime.now().year
age = current_year - birth_year

print("Your age is:", age)

# Salary conversion
salary_rupees = float(input("Enter salary in Rupees: "))
exchange_rate = 83  # Example rate (1 USD = 83 INR)
salary_dollars = salary_rupees / exchange_rate

print("Salary in Dollars =", round(salary_dollars, 2))
```

Ln: 18 Col: 0

IDLE Shell 3.13.1

File Edit Shell Debug Options Window Help

```
Python 3.13.1 (tags/v3.13.1:0671451, Dec  3 2024, 19:06:28) [MSC v.1942 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/Dell/AppData/Local/Programs/Python/Python313/aditya1.py ==
Enter mass (in kg): 23
Enter velocity (in m/s): 12
Momentum (c) = 276.0 kg·m/s
>>>
========== RESTART: C:/Users/Dell/AppData/Local/Programs/Python/Python313/aditya1.py ==========
Enter a number: 34
Two-digit number
Square root = 5.830951894845301
>>>
========== RESTART: C:/Users/Dell/AppData/Local/Programs/Python/Python313/aditya1.py ==========
Enter your birth year (YYYY): 2006
Your age is: 20
Enter salary in Rupees: 65436
Salary in Dollars = 788.39
>>>
```

Ln: 19 Col: 0

*aditya1.py - C:/Users/Dell/AppData/Local/Programs/Python/Python313/aditya1.py (3.13.1)*

File Edit Format Run Options Window Help

```
# 4. Reverse a number

num = int(input("Enter a number: "))

reverse = 0
while num != 0:
    digit = num % 10
    reverse = reverse * 10 + digit
    num = num // 10

print("Reversed number =", reverse)
```

Ln: 12 Col: 0

IDLE Shell 3.13.1

File Edit Shell Debug Options Window Help

```
Python 3.13.1 (tags/v3.13.1:0671451, Dec  3 2024, 19:06:28) [MSC v.1942 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/Dell/AppData/Local/Programs/Python/Python313/aditya1.py ==
Enter mass (in kg): 23
Enter velocity (in m/s): 12
Momentum (c) = 276.0 kg·m/s
>>>
========== RESTART: C:/Users/Dell/AppData/Local/Programs/Python/Python313/aditya1.py ==========
Enter a number: 34
Two-digit number
Square root = 5.830951894845301
>>>
========== RESTART: C:/Users/Dell/AppData/Local/Programs/Python/Python313/aditya1.py ==========
Enter your birth year (YYYY): 2006
Your age is: 20
Enter salary in Rupees: 65436
Salary in Dollars = 788.39
>>>
========== RESTART: C:/Users/Dell/AppData/Local/Programs/Python/Python313/aditya1.py ==========
Enter a number: 23
Reversed number = 32
>>>
```

Ln: 23 Col: 0