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ROLL NO: 42

```
import numpy as np
import math
# Exploring basic NumPy methods (without array methods)
# Mathematical Constants
print("Pi:", np.pi)
print("Euler's Number:", np.e)
# Trigonometric Functions
angle rad = np.deg2rad(45) # Convert 45 degrees to radians
print("Sin(45 degrees):", np.sin(angle_rad))
print("Cos(45 degrees):", np.cos(angle_rad))
print("Tan(45 degrees):", np.tan(angle_rad))
# Exponential and Logarithmic Functions
print("Exponential of 2:", np.exp(2))
print("Natural Log of 10:", np.log(10))
print("Log base 10 of 100:", np.log10(100))
print("Log base 2 of 8:", np.log2(8))
# Rounding Functions
print("Ceil of 4.3:", np.ceil(4.3))
print("Floor of 4.7:", np.floor(4.7))
print("Round 4.5:", np.round(4.5))
# Random Number Generation
print("Random Number [0,1]:", np.random.rand())
print("Random Integer [1,10]:", np.random.randint(1, 10))
# Statistical Functions
data = [1, 2, 3, 4, 5, 6, 7, 8, 9]
print("Mean:", np.mean(data))
print("Median:", np.median(data))
print("Standard Deviation:", np.std(data))
print("Variance:", np.var(data))
# Greatest Common Divisor (GCD) and Least Common Multiple (LCM)
print("GCD of 24 and 36:", np.gcd(24, 36))
print("LCM of 6 and 8:", np.lcm(6, 8))
# Factorial and Power
print("Factorial of 5:", math.factorial(5))
print("2 to the power of 3:", np.power(2, 3))
Pi: 3.141592653589793
Euler's Number: 2.718281828459045
```

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Sin(45 degrees): 0.7071067811865475
Cos(45 degrees): 0.7071067811865476
Exponential of 2: 7.38905609893065
Natural Log of 10: 2.302585092994046
Log base 10 of 100: 2.0
Log base 2 of 8: 3.0
Ceil of 4.3: 5.0
Floor of 4.7: 4.0
Round 4.5: 4.0
Random Number [0,1]: 0.16005410039998647
Random Integer [1,10]: 7
Mean: 5.0
Median: 5.0
Standard Deviation: 2.581988897471611
Variance: 6.6666666666667
GCD of 24 and 36: 12
LCM of 6 and 8: 24
Factorial of 5: 120
2 to the power of 3: 8
```