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'''
Expt. No. : 1
Name      : Mohammed Aaban Javid Kadri
Roll no   : 50
UIN       : 241P120
Title     : Write a python code to generate personalized greeting using input/output statements
Div       : D
'''

Name = input("Enter your Name:- ")
UIN = input("Enter your UIN:- ")
Class = input("Enter Your Class:- ")
print(f"Hello! {Name}, Have a Great Day , UIN {UIN} And Class {Class}")
```

===== RESTART: C:\Users\DELL\Documents\Pythan lab\Exp-1

```
Enter your Name:- Aaban
Enter your UIN:- 241P120
Enter Your Class:- FE
Hello! Aaban, Have a Great Day , UIN 241P120 And Class FE
```

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'''
Aim : Write a pythan program to display student's personal details on their report card
'''
# Get student details
name = input("Enter Name: ")
roll = input("Enter Roll No: ")
grade = input("Enter Grade: ")
school = input("Enter School: ")

# Display report card
print("\n=== REPORT CARD ===")
print(f"Name      : {name}")
print(f"Roll No: {roll}")
print(f"Grade   : {grade}")
print(f"School  : {school}")
print("=====")

```

===== RESTART: C:\Users\DELL\Documents\Pythan lab\Exp-1 post.py =====

```

Enter Name: Aaban
Enter Roll No: 50
Enter Grade: 10
Enter School: Purushattam High School

```

```

=== REPORT CARD ===
Name      : Aaban
Roll No: 50
Grade   : 10
School  : Purushattam High School
=====

```

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'''
Aim : Write a program in python to find total surface area of cube and cuboid.
'''
import math

#Menu for user selection
print("Choose a shape to calculate the total surface area:")
print("1.Cube")
print("2.Cuboid")

choice = int(input("Enter your choice(1/2):"))

if choice == 1:
    side = float(input("Enter side length of cube:"))
    cube_tsa = 6*(side**2)
    print(f"Total Surface Area of Cube:{cube_tsa:2f}")

elif choice == 2:
    length = float(input("Enter length of cuboid:"))
    width = float(input("Enter width of cuboid:"))
    height = float(input("Enter height of cuboid:"))
    cuboid_tsa = 2*(length*width+width*height+length*height)
    print(f"Total Surface Area of Cuboid:{cuboid_tsa:2f}")

else:
    print("Invalid choice! Please select 1, or 2.")

===== RESTART: C:\Users\DELL\Documents\Pythan lab\Exp-2
Choose a shape to calculate the total surface area:
1.Cube
2.Cuboid
Enter your choice(1/2):1
Enter side length of cube:23
Total Surface Area of Cube:3174.000000

===== RESTART: C:\Users\DELL\Documents\Pythan lab\Exp-2
Choose a shape to calculate the total surface area:
1.Cube
2.Cuboid
Enter your choice(1/2):2
Enter length of cuboid:23
Enter width of cuboid:45
Enter height of cuboid:16
Total Surface Area of Cuboid:4246.000000

```

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'''
Expt. No. : 2
Name      : Mohammed Aaban Javid Kadri
Roll no   : 50
UIN       : 241P120
Title     : Write a pythan program to calculate areas of any geometric figures like circle,
           rectangle and tringle using basic operators
Div       : D
'''
import math

#Menu for user selection
print("Choose a shape to calculate the area:")
print("1.Circle")
print("2.Rectangle")
print("3.Triangle")

choice = int(input("Enter your choice(1/2/3):"))

if choice == 1:
    radius = float(input("Enter the radius of the circle:"))
    pi = 3.14
    area = pi*radius*radius
    print(f"Area of the circle:{area:.2f}")

elif choice == 2:
    length = float(input("Enter the length of the rectangle:"))
    width = float(input("Enter the width of the rectangle:"))
    area = length*width
    print(f"Area of the rectangle:{area:.2f}")

elif choice == 3:
    base = float(input("Enter the base of the triangle:"))
    height = float(input("Enter the height of the triangle:"))
    Half = 0.5
    area = Half*base*height
    print(f"Area of the triangle:{area:.2f}")

else:
    print("Invalid choice! Please select 1,2, or 3.")

```

===== RESTART: C:\Users\DELL\Documents\Pythan lab\Exp-2.py =====

Choose a shape to calculate the area:

- 1.Circle
- 2.Rectangle
- 3.Triangle

Enter your choice(1/2/3):1

Enter the radius of the circle:4

Area of the circle:50.24

===== RESTART: C:\Users\DELL\Documents\Pythan lab\Exp-2.py

Choose a shape to calculate the area:

- 1.Circle
- 2.Rectangle
- 3.Triangle

Enter your choice(1/2/3):2

Enter the length of the rectangle:4

Enter the width of the rectangle:5

Area of the rectangle:20.00

===== RESTART: C:\Users\DELL\Documents\Pythan lab\Exp-2.py

Choose a shape to calculate the area:

- 1.Circle
- 2.Rectangle
- 3.Triangle

Enter your choice(1/2/3):3

Enter the base of the triangle:4

Enter the height of the triangle:10

Area of the triangle:20.00

Expt. No. : 3
Name : Mohammed Aaban Javid Kadri
Roll no : 50
UIN : 241P120
Title : Write a Python program to calculate the gross salary of an employee. The program should prompt the user for the basic salary (BS) and then compute the dearness allowance (DA) as 70% of BS, the travel allowance (TA) as 30% of BS, and the house rent allowance (HRA) as 10% of BS. Finally, it should calculate the gross salary as the sum of BS, DA, TA, and HRA and display the result. Use inbuilt mathematical function.

Div : D

```
'''  
#Calculate gross salary of an employee  
import math  
BS = float(input("Enter the Basic Salary(BS) of the employee:"))
```

```
#Calculate allowance  
DA = 0.70*BS #70% of BS  
TA = 0.30*BS #30% of BS  
HRA = 0.10*BS #10% of BS
```

```
#Calculate gross salary  
gross_salary = BS + DA + TA + HRA
```

```
#Display the result  
print(f"\nBasic Salary(BS):{BS}")  
print(f"Dearness Allowance(DA):{DA}")  
print(f"Travel Allowance(TA):{TA}")  
print(f"House Rent Allowance(HRA):{HRA}")  
print(f"Gross Salary:{gross_salary}")
```

===== RESTART: C:\Users\DELL\Documents\Pythan lab\Exp-3.py =====

Enter the Basic Salary(BS) of the employee:5000

Basic Salary(BS):5000.0
Dearness Allowance(DA):3500.0
Travel Allowance(TA):1500.0
House Rent Allowance(HRA):500.0
Gross Salary:10500.0

Aim : Write a python program to display student's two test marks, average, total and percentage on their report card.

```
...  
# Input: Prompt the user to enter marks for two tests  
test1 = float(input("Enter marks for Test 1: "))  
test2 = float(input("Enter marks for Test 2: "))  
  
# Calculate total marks  
total_marks = test1 + test2  
  
# Calculate average marks  
average_marks = total_marks / 2  
  
# Calculate percentage (assuming each test is out of 100)  
percentage = (total_marks / 200) * 100
```

```
# Display the report card  
print("\n--- Student Report Card ---")  
print(f"Test 1 Marks      : {test1}")  
print(f"Test 2 Marks      : {test2}")  
print(f"Total Marks       : {total_marks}")  
print(f"Average Marks     : {average_marks:.2f}")  
print(f"Percentage        : {percentage:.2f}%")
```

===== RESTART: C:\Users\DELL\Documents\Pythan lab\Exp-3 post.py

```
Enter marks for Test 1: 35  
Enter marks for Test 2: 20
```

```
--- Student Report Card ---  
Test 1 Marks      : 35.0  
Test 2 Marks      : 20.0  
Total Marks       : 55.0  
Average Marks     : 27.50  
Percentage        : 27.50%
```

```
'''
Expt. No. : 4
Name      : Mohammed Aaban Javid Kadri
Roll no   : 50
UIN       : 241P120
Title     : Write a Python program to explore basic arithmetic operations. The program should prompt the user to enter two numbers
            and then perform addition, subtraction, multiplication, division, and modulus operations on those numbers. The results
            of each operation should be displayed to the user.
Div       : D
'''
```

```
#Get user input
num1 = float(input("Enter first number:"))
num2 = float(input("Enter second number:"))

#Check num2 is zero or not
if num2 == 0:
    print("Division and modulus by zero are not allowed.")
else:
    print(f"Addition:{num1}+{num2}={num1+num2}")
    print(f"Subtraction:{num1}-{num2}={num1-num2}")
    print(f"Multiplication:{num1}*{num2}={num1*num2}")
    print(f"Division:{num1}/{num2}={num1/num2}")
    print(f"Modulus:{num1}%{num2}={num1%num2}")

===== RESTART: C:\Users\DELL\Documents\Pythan lab\Exp-4.py
Enter first number:5
Enter second number:4
Addition:5.0+4.0=9.0
Subtraction:5.0-4.0=1.0
Multiplication:5.0*4.0=20.0
Division:5.0/4.0=1.25
Modulus:5.0%4.0=1.0
```



```
'''
Aim : Write a Python program to calculate the simple interest based on user input. The program should
prompt the user to enter the principal amount, the rate of interest, and the time period in years. It should
then compute the simple interest using the formula Simple Interest=(Principal*Rate*Time) /100 and
display the result.
'''

# Get user input
principal = float(input("Enter the principal amount: "))
rate = float(input("Enter the rate of interest (% per year): "))
time = float(input("Enter the time period (in years): "))

# Calculate simple interest
simple_interest = (principal * rate * time) / 100

# Display the result
print(f"\nSimple Interest = ( {principal} * {rate} * {time} ) / 100 = {simple_interest}")
```

===== RESTART: C:\Users\DELL\Documents\Pythan lab\Exp-4 post.py =====

Enter the principal amount: 45

Enter the rate of interest (% per year): 4

Enter the time period (in years): 3

Simple Interest = (45.0 × 4.0 × 3.0) / 100 = 5.4