

✓ Problem - 1

- Program that will decide whether a number is positive or not

```
number = int(input("Enter the Numebr: "))
```

```
if number>=0:
    print("Positive")
else:
    print("Negative")
```

```
Enter the Numebr: 7
Positive
```

```
number = float(input("Enter the Numebr: "))
```

```
if number>=0:
    print("Positive")
else:
    print("Negative")
```

```
number = float(input("Enter the Numebr: "))
```

```
if number>=0:
    print("Positive")
else:
    print("Negative")
```

```
Enter the Numebr: 0
Positive
```

def function

```
def pndec(number):
    if number>0:
        return 'Positive'
    else:
        return 'Negative'
```

```
x = float(input())
print(pndec(x))
```

```
-11.11
Negative
```

✓ Problem - 2

- Program that will decide whether a number is even or odd.

```
number = int(input("Enter the Numebr: "))
```

```
if number%2==0:
    print("Even")
else:
    print('Odd')
```

```
Enter the Numebr: 0
Even
```

```
number = int(input("Enter the Numebr: "))
```

```
if number%2==0:
    print("Even")
else:
    print('Odd')
```

```
Enter the Numebr: -77
Odd
```

```
number = int(input("Enter the Numebr: "))
```

```
if number%2==0:
    print("Even")
else:
    print('Odd')
```

```
Enter the Numebr: 0
Even
```

```
def function
```

```
def evdec(Even):
    if Even%2==0:
        return 'Even Number'
    else:
        return 'Odd Number'
x = int(input())
print(evdec(x))
```

```
8
Even Number
```

✓ Problem - 3

- Program that will take an integer of length one from the terminal and then display the digit in English.

```
digit = int(input("Enter a single-digit integer: "))
```

```
if digit == 0 :
    print("Zero")
elif digit == 1:
    print("One")
elif digit == 2:
    print("Two")
elif digit == 3:
    print("Three")
elif digit == 4:
    print("Four")
elif digit == 5:
    print("Five")
elif digit == 6:
    print("Six")
elif digit == 7:
    print("Seven")
elif digit == 8:
    print("Eight")
elif digit == 9:
    print("Nine")
else:
    print("Invalid input. Please enter a single-digit integer.")
```

```
Enter a single-digit integer: 10
Invalid input. Please enter a single-digit integer.
```

- Extra

```
digit = int(input("Enter a single-digit integer: "))
if 0 <= digit <= 9:
    words = ["Zero", "One", "Two", "Three", "Four", "Five", "Six", "Seven", "Eight", "Nine"]
    print(words[digit])
else:
    print("Invalid input. Please enter a single-digit integer.")
```

```
Enter a single-digit integer: 10
Invalid input. Please enter a single-digit integer.
```

def function

```
def dname(digit):
    if 0 <= digit <= 9:
        words = ["Zero", "One", "Two", "Three", "Four", "Five", "Six", "Seven", "Eight", "Nine"]
        return words[digit]
    else:
        return "Invalid input. Please enter a single-digit integer."
x = int(input("Enter a single-digit integer: "))
print(dname(x))
```

```
Enter a single-digit integer: 9
Nine
```

```
def dname(digit):
    if digit == 0 :
        return "Zero"
    elif digit == 1:
        return "One"
    elif digit == 2:
        return "Two"
    elif digit == 3:
        return "Three"
    elif digit == 4:
        return "Four"
    elif digit == 5:
        return "Five"
    elif digit == 6:
        return "Six"
    elif digit == 7:
        return "Seven"
    elif digit == 8:
        return "Eight"
    elif digit == 9:
        return "Nine"
    else:
        return "Invalid input. Please enter a single-digit integer."
x = int(input("Enter a single-digit integer: "))
print(dname(x))
```

✓ Problem - 4

- Program that will check whether a triangle is valid or not, when the three angles (angle value should be such that, $0 < \text{value} < 180$) of the triangle are entered through the keyboard.

```
#value of three angle:
first_angle=int(input("Enter the first angles: "))
second_angle=int(input("Enter the second angles: "))
thrid_angle=int(input("Enter the third angles: "))
total_angles=first_angle+second_angle+thrid_angle
if total_angles==180:
    print("Triangle")
else:
    print("Not Triangle")
```

```
Enter the first angles: 45
Enter the second angles: 45
Enter the third angles: 90
Triangle
```

- Extra

```

angle1 = int(input("Enter the first angle: "))
angle2 = int(input("Enter the second angle: "))
angle3 = int(input("Enter the third angle: "))
if 0 < angle1 < 180 and 0 < angle2 < 180 and 0 < angle3 < 180:
    if angle1 + angle2 + angle3 == 180:
        print("Yes")
    else:
        print("No")
else:
    print("Invalid angle values. Each angle should be between 0 and 180 degrees.")

Enter the first angle: 190
Enter the second angle: 120
Enter the third angle: 11
Invalid angle values. Each angle should be between 0 and 180 degrees.

```

- Another Extra

```

a= angle1 = int(input("Enter the first angle: "))
b= angle2 = int(input("Enter the second angle: "))
c= angle3 = int(input("Enter the third angle: "))
if 0 < angle1 < 180 and 0 < angle2 < 180 and 0 < angle3 < 180:
    if a+b>c and b+c>a and a+c>b:
        print('Triangle')
    else:
        print('Not Triangle')
else:
    print("Invalid angle values. Each angle should be between 0 and 180 degrees.")

```

✓ Problem - 5

- Program that will read from the console a random positive nonzero number and determine if it is a power of 2.

```

x = int(input("Enter an integer number: "))

if(x>0) and (x & (x-1)) == 0:
    print("Yes")
else:
    print("No")

Enter an integer number: 514
No

Num = int(input("Enter the Number to check "))

root = Num**(1/2)
if int(root + 0.5) ** 2 == Num:
    print(Num, "is a perfect square")
else:
    print(Num, "is not a perfect square")

Enter the Number to check 4
4 is a perfect square

# This way

Num = int(input("Enter the Number to check "))

root = Num**(1/2)

if int(root) ** 2 == Num:
    print(Num, "is a perfect square")
else:
    print(Num, "is not a perfect square")

Enter the Number to check 0
0 is a perfect square

print(8**(1/2))

```

```
2.8284271247461903
```

```
print(4**(1/2))
```

```
2.0
```

- Program that will read from the console a random positive nonzero number and determine if it is a power of 3.

```
Num = int(input("Enter the Number to check "))
```

```
root = Num**(1/3)
```

```
if int(root) ** 3 == Num:
```

```
    print(Num, "is a perfect cube")
```

```
else:
```

```
    print(Num, "is not a perfect cube")
```

```
Enter the Number to check 8
```

```
8 is a perfect cube
```

✓ Problem - 6

- Program that will read from the console a random number and check if it is a nonzero positive number. If the check is yes, it will determine if the number is a power of 2. If the check fails the program will check for two more cases. If the number is zero, the program will print "Zero is not a valid input". Else it will print "Negative input is not valid".

```
Num = int(input("Enter the Number to check "))
```

```
root = Num**(1/2)
```

```
if (Num > 0):
```

```
    if int(root) ** 2 == Num:
```

```
        print(Num, "is a perfect square")
```

```
    else:
```

```
        print(Num, "is not a perfect square")
```

```
elif(Num == 0):
```

```
    print("Zero is not a valid input")
```

```
elif(Num < 0):
```

```
    print("Negative")
```

```
x = int(input("Enter an integer number: "))
```

```
if(x > 0):
```

```
    if(x & (x-1)) == 0:
```

```
        print("Yes")
```

```
    else:
```

```
        print("No")
```

```
elif(x == 0):
```

```
    print("Zero is not a valid input")
```

```
elif(x < 0):
```

```
    print("Negative")
```

```
Enter an integer number: 0
```

```
Zero is not a valid input
```

✓ Problem - 7

- Program that will take two numbers X & Y as inputs and decide whether X is greater than/less than/equal to Y.

```
X = float(input('Enter the Number: '))    #2
Y = float(input('Enter the Number: '))    #3
```

```
if X>Y:
    print(X,'is Greater than',Y)
```

```
elif X<Y:
    print(X,"is less than",Y)
```

```
else:
    print(X,"is equal to",Y)
```

```
Enter the Number: 10
Enter the Number: 5
10.0 is Greater than 5.0
```

```
X = float(input('Enter the Number: '))
Y = float(input('Enter the Number: '))
```

```
if X>Y:
    print(X,'is Greater than',Y)
```

```
elif X<Y:
    print(X,"is less than",Y)
```

```
else:
    print(X,"is equal to",Y)
```

```
Enter the Number: -11
Enter the Number: 5
-11.0 is less than 5.0
```

```
X = float(input('Enter the Number: '))
Y = float(input('Enter the Number: '))
```

```
if X>Y:
    print(X,'is Greater than',Y)
```

```
elif X<Y:
    print(X,"is less than",Y)
```

```
else:
    print(X,"is equal to",Y)
```

```
Enter the Number: 5
Enter the Number: 5
5.0 is equal to 5.0
```

✓ Problem - 8

- Program that will decide whether a year is leap year or not.

```
Year=int(input("Enter the year: "))
if (Year% 4 == 0 and Year % 100 != 0) or (Year % 400 ==0):    #365d 6h 24min
    print("Yes")
else:
    print("No")
```

```
Enter the year: 2000
Yes
```

```
Year=int(input("Enter the year: "))
if (Year% 4 == 0 and Year % 100 != 0) or (Year % 400 ==0):
    print("Yes")
else:
    print("No")
```

```
Enter the year: 2014
No
```

```
def is_leap(year):
    leap = False

    if year%400==0 or (year%4==0 and year%100!=0):
        leap = True
    return leap

year = int(input())
print(is_leap(year))

2014
False
```

✓ Problem - 9

- Program that will categorize a single character that is entered at the terminal, whether it is an alphabet, a digit or a special character.

```
character = input('Take any character: ')
if ('A'<= character <='Z') or ('a'<= character <='z'):
    print("Alphabet")
elif ('0'<= character <='9'):
    print('Digit')
else:
    print("special character")
```

```
Take any character: )
special character
```

```
character = input('Take any character: ')
```

```
if character.isalpha():
    print('Alphabet')
elif character.isdigit():
    print('digit')
elif character.isdigit():
    print('Negative digit')
else:
    print('special character')
```

```
Take any character: -10
```

```
-----
TypeError                                 Traceback (most recent call last)
<ipython-input-24-0f011c4d7603> in <cell line: 3>()
      5 elif character.isdigit():
      6     print('digit')
----> 7 elif character.isdigit(reversed == True):
      8     print('Negative digit')
      9 else:
```

```
TypeError: str.isdigit() takes no arguments (1 given)
```

```
character = input('Take any character: ')
```

```
if character.isalpha():
    print('Alphabet')
elif character.isdigit():
    if character.startswith('-'):
        print('Negative digit')
    else:
        print('Digit')
else:
    print('Special character')
```

```
# Input from the user
char = input("Enter a single character: ")

# Check if the character is an alphabet
if (char >= 'a' and char <= 'z') or (char >= 'A' and char <= 'Z'):
    print(f"{char} is an alphabet.")
# Check if the character is a digit
elif char >= '0' and char <= '9':
    print(f"{char} is a digit.")
# If not an alphabet or digit, it's a special character
else:
    print(f"{char} is a special character.")
```

✓ Problem - 10

Can't Understand

```
a=number1=float(input("Take a number: "))
b=number2=float(input('Take a number: '))
operator=input("\nTake an operator as a string: '+', '-', '*', '/'\nYour operator: ")

if operator=='+':
    add=a+b
    print('Addition: ',add)
elif operator=='-':
    sub=a-b
    print('Substraction: ',sub)
elif operator=='*':
    multi=a*b
    print('Multiplication: ',multi)
elif operator=='/':
    if number2!=0:
        div=a/b
        print('Division: ',div)
    else:
        print('Division: Zero is not valid!')
else:
    print('You have to take the correct operator')
```

- The split() method splits a string into a list.
-


```

# Input from the user
expression = input("Enter a simple expression (e.g., <number1> <operator> <number2>): ")
parts = expression.split()

# Check if the expression has three parts
if len(parts) != 3:
    print("Invalid expression format. Please enter in the form <number1> <operator> <number2>.")
    exit()

# Extract the parts of the expression
number1 = float(parts[0])
operator = parts[1]
number2 = float(parts[2])

# Evaluate the expression
if operator == '+':
    result = number1 + number2
elif operator == '-':
    result = number1 - number2
elif operator == '*':
    result = number1 * number2
elif operator == '/':
    if number2 != 0:
        result = number1 / number2
    else:
        print("Error: Division by zero")
        exit()
else:
    print("Invalid operator. Please use one of '+', '-', '*', '/'.")
    exit()

# Display the result
print(f"Result: {result}")

Enter a simple expression (e.g., <number1> <operator> <number2>): 10 + 12
Result: 22.0

```

✓ Problem - 11

- Program that will take the final score of a student in a particular subject as input and find his/her grade.

```

grade=int(input('The number on the subject: '))
if(grade>=90 and grade<=100 ):
    print("Your grade is A")
elif(grade>=86 and grade<=89):
    print("Your grade is A-")
elif(grade>=82 and grade<=85):
    print("your grade is B+")
elif(grade>=78 and grade<=81):
    print("your grade is B")
elif(grade>=74 and grade<=77):
    print("your grade is B-")
elif(grade>=70 and grade<=73):
    print("your grade is C+")
elif(grade>=66 and grade<=69):
    print("your grade is C")
elif(grade>=62 and grade<=65):
    print("your grade is C-")
elif(grade>=58 and grade<=61):
    print("your grade is D+")
elif(grade>=55 and grade<=57):
    print("your grade is D")
else:
    print("your grade is F")

The number on the subject: 91.5
Your grade is A

```

```

grade=float(input('The number on the subject: '))
if(grade>=90 and grade<=100 ):
    print("Your grade is A")
elif(grade>=86 and grade<=89):
    print("Your grade is A-")
elif(grade>=82 and grade<=85):
    print("your grade is B+")
elif(grade>=78 and grade<=81):
    print("your grade is B")
elif(grade>=74 and grade<=77):
    print("your grade is B-")
elif(grade>=70 and grade<=73):
    print("your grade is C+")
elif(grade>=66 and grade<=69):
    print("your grade is C")
elif(grade>=62 and grade<=65):
    print("your grade is C-")
elif(grade>=58 and grade<=61):
    print("your grade is D+")
elif(grade>=55 and grade<=57):
    print("your grade is D")
else:
    print("your grade is F")

    The number on the subject: 50
    your grade is F

```

✓ Problem - 12

- Program that will construct a menu for performing arithmetic operations. The user will give two real numbers (a, b) on which the arithmetic operations will be performed and an integer number (1 <= Choice <= 4) as a choice. Choice-1, 2, 3, 4 are for performing addition, subtraction, multiplication, division (quotient) respectively.

solve: Quotient means the floor division

```

a = float(input("Enter the first real number (a): "))
b = float(input("Enter the second real number (b): "))
choice = int(input("Choose an operation (1: Addition, 2: Subtraction, 3: Multiplication, 4: Division): "))

if choice == 1:
    result = a + b
    print("Addition: ",result)
elif choice == 2:
    result = a - b
    print("Subtraction: ",result)
elif choice == 3:
    result = a * b
    print("Multiplication: ",result)
elif choice == 4:
    if b != 0:
        result = a // b
        print("Division: ",result)
    else:
        print("Error: Cannot divide by zero.")
else:
    print("Invalid choice. Please choose a number between 1 - 4.")

Enter the first real number (a): 15
Enter the second real number (b): 0
Choose an operation (1: Addition, 2: Subtraction, 3: Multiplication, 4: Division): 4
Error: Cannot divide by zero.

```

- def is short for "define". It's a keyword that you need to define a function (aka method)

```

# Function to perform addition
def add(a, b):
    return a + b

# Function to perform subtraction
def subtract(a, b):
    return a - b

# Function to perform multiplication
def multiply(a, b):
    return a * b

# Function to perform division
def divide(a, b):
    if b != 0:
        return a / b
    else:
        return "Error: Division by zero"

a = float(input("Enter the first real number (a): "))
b = float(input("Enter the second real number (b): "))
choice = int(input("Choose an arithmetic operation:\n1. Addition\n2. Subtraction\n3. Multiplication\n4. Division\nEnter your choice (1-4): "))

# Perform the selected arithmetic operation
if choice == 1:
    result = add(a, b)
    operation = "Addition"
elif choice == 2:
    result = subtract(a, b)
    operation = "Subtraction"
elif choice == 3:
    result = multiply(a, b)
    operation = "Multiplication"
elif choice == 4:
    result = divide(a, b)
    operation = "Division"
else:
    print("Invalid choice. Please choose a number between 1 and 4.")
    exit()

# Display the result
print(operation, 'of', a, 'and', b, 'is: ', result)

Enter the first real number (a): .25
Enter the second real number (b): 5
Choose an arithmetic operation:
1. Addition
2. Subtraction
3. Multiplication
4. Division
Enter your choice (1-4): 3
Multiplication of 0.25 and 5.0 is: 1.25

```

✓ Problem - 13

-
- Program that will construct a menu for performing arithmetic operations. The user will give two real numbers (a, b) on which the arithmetic operations will be performed and an integer number (1 <= Choice <= 4) as a choice. Choice-1, 2, 3, 4 are for performing addition, subtraction, multiplication, division respectively. If Choice-4 is selected, again the program will ask for another choice (1 <= Case <= 2), where Case-1, 2 evaluate quotient and remainder respectively

```

a = float(input("Enter the first real number (a): "))
b = float(input("Enter the second real number (b): "))
choice = int(input("Choose an operation-\n1: Addition\n2: Subtraction\n3: Multiplication\n4: Division:\nOperation No.))

if 1<=choice<=4:
    if choice == 1:
        result = a + b
        print("Addition: ",result)
    elif choice == 2:
        result = a - b
        print("Subtraction: ",result)
    elif choice == 3:
        result = a * b
        print("Multiplication: ",result)
    elif choice == 4:
        Case = int(input("Choose an operation-\n1: Quotient\n2: Remainder \nOperation No.))
        if Case == 1:
            result = a // b
            print("Quotient: ",result)
        elif Case ==2:
            result = a%b
            print("Remainder: ",result)
        else:
            print("Error:You have to select a Case  between 1 and 2. ")
else:
    print("Invalid choice. Please choose a number between 1 and 4.")

```

Enter the first real number (a): 13

Enter the second real number (b): 0

Choose an operation-

1: Addition

2: Subtraction

3: Multiplication

4: Division:

Operation No.4

Choose an operation-

1: Quotient

2: Remainder

Operation No.2

ZeroDivisionError Traceback (most recent call last)

<ipython-input-25-5ccf1a406fc8> in <cell line: 6>()

20 print("Quotient: ",result)

21 elif Case ==2:

--> 22 result = a%b

23 print("Remainder: ",result)

24 else:

ZeroDivisionError: float modulo

✓ Problem - 14

- Program that will construct a menu for performing arithmetic operations. The user will give two real numbers (a, b) on which the arithmetic operations will be performed and an integer number ($1 \leq \text{Choice} \leq 4$) as a choice. Choice-1, 2, 3, 4 are for performing addition, subtraction, multiplication, division respectively. If Choice-4 is selected, the program will check if b is nonzero. If the check is true, the program will ask for another choice ($1 \leq \text{Case} \leq 2$), where Case-1, 2 evaluate quotient and remainder respectively. If the check is false, it will print an error message "Error: Divisor is zero" and halt.

```
a = float(input("Enter the first real number (a): "))
b = float(input("Enter the second real number (b): "))
choice = int(input("Choose an operation-\n1: Addition\n2: Subtraction\n3: Multiplication\n4: Division:\nOperation No."))
```

```
if 1<=choice<=4:
    if choice == 1:
        result = a + b
        print("Addition: ",result)
    elif choice == 2:
        result = a - b
        print("Subtraction: ",result)
    elif choice == 3:
        result = a * b
        print("Multiplication: ",result)
    elif choice == 4:
        if b!=0:
            Case = int(input("Choose an operation-\n1: Quotient\n2: Remainder \nOperation No."))
            if Case == 1:
                result = a // b
                print("Quotient: ",result)
            elif Case ==2:
                result = a%b
                print("Remainder: ",result)
            else:
                print("Error:You have to select a Case  between 1 and 2. ")
        else:
            print("Error: Divisor is Zero")
else:
    print("Invalid choice. Please choose a number between 1 and 4.")
```

```
Enter the first real number (a): 13
Enter the second real number (b): 0
Choose an operation-
1: Addition
2: Subtraction
3: Multiplication
4: Division:
Operation No.4
Error: Divisor is Zero
```

```
a = float(input("Enter the first real number (a): "))
b = float(input("Enter the second real number (b): "))
choice = int(input("Choose an operation-\n1: Addition\n2: Subtraction\n3: Multiplication\n4: power:\nOperation No."))
```

```
if 1<=choice<=4:
    if choice == 1:
        result = a + b
        print("Addition: ",result)
    elif choice == 2:
        result = a - b
        print("Subtraction: ",result)
    elif choice == 3:
        result = a * b
        print("Multiplication: ",result)
    elif choice == 4:
        Power = int(input("Power: "))
        result1 = a**Power
        result2 = b**Power
        print("Power: ", 'a: ',result1,'b: ',result2 )
```

```
Enter the first real number (a): 2
Enter the second real number (b): 4
Choose an operation-
1: Addition
2: Subtraction
3: Multiplication
4: power:
Operation No.4
Power: 3
Power: a: 8.0 b: 64.0
```

✓ Problem - 15

- Program for "Guessing Game": Player-1 picks a number X and Player-2 has to guess that number within N = 3 tries. For each wrong guess by Player-2, the program prints "Wrong, N-1 Chance(s) Left!" If Player-2 successfully guesses the number, the program prints "Right, Player-2 wins!" and stops allowing further tries (if any left). Otherwise after the completion of N = 3 wrong tries, the program prints "Player-1 wins!" and halts. [Restriction: Without using loop/break/continue Hint: Use flag]

```
# Input from Player-1
target_number = int(input("Player-1, enter a number (X): "))
```

```
# Set the maximum number of tries
max_tries = 3
```

```
# Initialize the flag for correct guess
correct_guess = False
```

```
# First attempt by Player-2
guess = int(input("Player-2, guess the number: "))
```

```
    # Check if the guess is correct
    if guess == target_number:
        print("Right, Player-2 wins!")
        correct_guess = True
    else:
        print("Wrong", max_tries - 1, "Chance(s) Left!")
```

```
# Second attempt by Player-2 (if necessary)
if correct_guess != True:
    guess = int(input("Player-2, guess the number: "))
```

```
    # Check if the guess is correct
    if guess == target_number:
        print("Right, Player-2 wins!")
        correct_guess = True
    else:
        print("Wrong", max_tries - 2, "Chance(s) Left!")
```

```
# Third attempt by Player-2 (if necessary)
if correct_guess != True:
    guess = int(input("Player-2, guess the number: "))
```

```
    # Check if the guess is correct
    if guess == target_number:
        print("Right, Player-2 wins!")
    else:
        print("Player-1 wins!")
```

```
Player-1, enter a number (X): 5
Player-2, guess the number: 4
Wrong 2 Chance(s) Left!
Player-2, guess the number: 7
Wrong 1 Chance(s) Left!
Player-2, guess the number: 5
Right, Player-2 wins!
```

```
# Input from Player-1
target_number = int(input("Player-1, enter a number (X): "))

# Set the maximum number of tries
max_tries = 3

# Initialize the flag for correct guess
correct_guess = False

# First attempt by Player-2

# Check if the guess is correct
if 0<=target_number<=9:
    guess = int(input("Player-2, guess the number: "))
    if guess == target_number:
        print("Right, Player-2 wins!")
        correct_guess = True
    else:
        print("Wrong", max_tries - 1, "Chance(s) Left!")

# Second attempt by Player-2 (if necessary)
if correct_guess != True:
    guess = int(input("Player-2, guess the number: "))

    # Check if the guess is correct
    if guess == target_number:
        print("Right, Player-2 wins!")
        correct_guess = True
    else:
        print("Wrong", max_tries - 2, "Chance(s) Left!")

# Third attempt by Player-2 (if necessary)
if correct_guess != True:
    guess = int(input("Player-2, guess the number: "))

    # Check if the guess is correct
    if guess == target_number:
        print("Right, Player-2 wins!")
    else:
        print("Player-1 wins!")
else:
    print('PLEASE! Take a number between 0-9.Otherwise it\'s to much Hard!')

Player-1, enter a number (X): 8
Player-2, guess the number: 8
Right, Player-2 wins!
```

```

import getpass

target_number = getpass.getpass('Enter your number')

max_tries = 3

correct_guess = False

guess = int(input("Player-2, guess the number: "))

if guess == target_number:
    print("Right, Player-2 wins!")
    correct_guess = True
else:
    print("Wrong", max_tries - 1, "Chance(s) Left!")

if correct_guess != True:
    guess = int(input("Player-2, guess the number: "))

    if guess == target_number:
        print("Right, Player-2 wins!")
        correct_guess = True
    else:
        print("Wrong", max_tries - 2, "Chance(s) Left!")

if correct_guess != True:
    guess = int(input("Player-2, guess the number: "))

    if guess == target_number:
        print("Right, Player-2 wins!")
    else:
        print("Player-1 wins!")

        Enter your number.....
        Player-2, guess the number: 9
        Wrong 2 Chance(s) Left!
        Player-2, guess the number: 6
        Wrong 1 Chance(s) Left!
        Player-2, guess the number: 9
        Player-1 wins!

```

```

import getpass

target_number = getpass.getpass('Enter your number')

print(target_number)

    Enter your number.....
    9

```

✓ Number guessing Game


```

import random
import math
# Taking Inputs
lower = int(input("Enter Lower bound:- "))

# Taking Inputs
upper = int(input("Enter Upper bound:- "))

# generating random number between
# the lower and upper
x = random.randint(lower, upper)
print("\n\tYou've only ",
      round(math.log(upper - lower + 1, 2)),
      " chances to guess the integer!\n")

# Initializing the number of guesses.
count = 0

# for calculation of minimum number of
# guesses depends upon range
while count < math.log(upper - lower + 1, 2):
    count += 1

    # taking guessing number as input
    guess = int(input("Guess a number:- "))

    # Condition testing
    if x == guess:
        print("Congratulations you did it in ",
              count, " try")
        # Once guessed, loop will break
        break
    elif x > guess:
        print("You guessed too small!")
    elif x < guess:
        print("You Guessed too high!")

# If Guessing is more than required guesses,
# shows this output.
if count >= math.log(upper - lower + 1, 2):
    print("\nThe number is %d" % x)
    print("\tBetter Luck Next time!")

# Better to use This source Code on pycharm!

Enter Lower bound:- 4
Enter Upper bound:- 9

        You've only  3  chances to guess the integer!

Guess a number:- 1
You guessed too small!
Guess a number:- 10
You Guessed too high!
Guess a number:- 5
You guessed too small!

The number is 6
        Better Luck Next time!

print(round(math.log(8-7+ 1, 2)))

1

```

```

def Game():
    Guess = 0
    NumberOfGuesses = 0
    NumberToGuess = int(input("Player One enter you chosen number: "))
    while NumberToGuess < 1 or NumberToGuess > 10:
        NumberToGuess = int(input("Not a valid choice, please enter another number: "))
    while Guess != NumberToGuess and NumberOfGuesses < 5:
        Guess = int(input("Player Two have a guess: "))
        NumberOfGuesses = NumberOfGuesses + 1
    if Guess == NumberToGuess:

secret_num = input("Player One, give me a number: ")

for i in range(100):
    print ("Don't look, Player Two!")

guess = input("Player Two, what's your guess? ")

if guess == secret_num:
    print ("You got it!")
else:
    print ("Sorry, you lose.")
    - - - - -

secret_num = input("Player One, give me a number: ")

for i in range(100):
    print ("Don't look, Player Two!")

guess = input("Player Two, what's your guess? ")

if guess == secret_num:
    print ("You got it!")
else:
    print ("Sorry, you lose.")

```

Other Section -C.T