

Task -1: Write a python program to find the largest of three numbers.

```
# Write a python program to find the largest of three numbers.  
def largest_of_three(a, b, c):  
    try:  
        a, b, c = float(a), float(b), float(c)  
        if a >= b and a >= c:  
            return a  
        elif b >= a and b >= c:  
            return b  
        else:  
            return c  
    except ValueError:  
        return "Invalid input. Please enter numeric values."  
  
# Example usage  
a, b, c = input("A= "), input("B= ") ,input("C= ")  
print(largest_of_three(a, b, c))
```

Output

```
A= 15  
B= 36  
C= 16  
36.0
```

Task-2: Write a program to calculate area of triangle.

```
task-2.py

# Write a python program to calculate the area of triangle.
import math
def area_of_triangle(a, b, c):
    try:
        a, b, c = float(a), float(b), float(c)
        if(a + b > c and a + c > b and b + c > a):
            s = (a + b + c) / 2
            area = math.sqrt(s * (s-a) * (s-b) * (s-c))
            return area
        else:
            return "Invalid input. Triangle is not possible"
    except ValueError:
        return "Invalid input. Please enter numeric values."

# Example usage
a , b, c  = input("A= ") , input("B= ") , input("C= ")
print(area_of_triangle(a, b, c))
```

Output

```
A= 12
B= 13
C= 14
72.30793524918272
```

Task-3: Write a python program to find even numbers from 1 to 200 using function.

```
task-3.py

# Write a python program to find even numbers from 1 to 200 using function.

def even_numbers(start, end):
    try:
        start, end = int(start), int(end)
        list_even_numbers = []
        for i in range(start, end + 1):
            if i % 2 == 0:
                list_even_numbers.append(i)
        return list_even_numbers
    except ValueError:
        return "Invalid input. Please enter numeric values."

# Example usage
print(even_numbers(0, 200))
```

Output

Clear

```
[0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24,
 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46,
 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68,
 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90,
 92, 94, 96, 98, 100, 102, 104, 106, 108, 110,
 , 112, 114, 116, 118, 120, 122, 124, 126,
 128, 130, 132, 134, 136, 138, 140, 142, 144,
 146, 148, 150, 152, 154, 156, 158, 160, 162,
 164, 166, 168, 170, 172, 174, 176, 178, 180,
 182, 184, 186, 188, 190, 192, 194, 196, 198,
 200]
```

Task-4: Write a python program to find the area of circle and area of rectangle using function.

```
task-4.py

# Write a python program to find the area of circle and area of rectangle using function.

import math

def area_of_circle(radius):
    try:
        radius = float(radius)
        return math.pi * radius * radius
    except ValueError:
        return "Invalid input. Please enter a numeric value for radius."

# Example usage
radius = input("Radius= ")
print(area_of_circle(radius))

def area_of_rectangle(length, width):
    try:
        length, width = float(length), float(width)
        return length * width
    except ValueError:
        return "Invalid input. Please enter numeric values for length and width."

# Example usage
length, width = input("length= ") , input("Width= ")
print(area_of_rectangle(length, width))
```

Output

```
Radius= 15
706.8583470577034
length= 12
Width= 13
156.0
```

Task-5: Write a python program to find out which word is vowel or consonant using function.

```
task-5.py

# Write a python program to find out which word is vowel or consonant using function.

def is_vowel(char):
    vowels = 'aeiouAEIOU'
    if char in vowels:
        return True
    return False

def is_vowel_or_consonant(word):
    try:
        if not isinstance(word, str):
            raise ValueError("Input must be a string.")
        result = {}
        for char in word:
            if char.isalpha():
                result[char] = 'Vowel' if is_vowel(char) else 'Consonant'
        return result
    except ValueError as ve:
        return str(ve)

# Example usage
value = input("Input: ")
print(is_vowel_or_consonant(value))
```

Output

Clear

Input: Farhad

```
{'F': 'Consonant', 'a': 'Vowel', 'r': 'Consonant',
 , 'h': 'Consonant', 'd': 'Consonant'}
```

Task-6: Write a python program to find grade of a student in diploma Curriculum.

```
task-6.py

# Write a python program to find grade of a student in diploma Curriculum.
def find_grade_letter(marks):
    try:
        marks = float(marks)
        if marks < 0 or marks > 100:
            return "Marks should be between 0 and 100."
        if marks >= 80:
            return 'A+'
        elif marks >= 75:
            return 'A'
        elif marks >= 70:
            return 'A-'
        elif marks >= 65:
            return 'B+'
        elif marks >= 60:
            return 'B'
        elif marks >= 55:
            return 'B-'
        elif marks >= 50:
            return 'C+'
        elif marks >= 45:
            return 'C'
        elif marks >= 40:
            return 'D'
        else:
            return 'F'
    except ValueError:
        return "Invalid input. Please enter numeric values."

# Example usage
mark = input("Mark = ")
print(find_grade_letter(mark))
```

Output

```
Mark = 56
B-
```

Task-7: Write a python program to find the factorial of a number using function.

```
task-7.py

# Write a python program to find the factorial of a number using function.

def factorial(n):
    try:
        n = int(n)
        if n < 0:
            raise ValueError("Factorial is not defined for negative numbers.")
        if n == 0:
            return 1
        else:
            return n * factorial(n-1)
    except ValueError as ve:
        return str(ve)

# Example usage
n = input("n = ")
print(factorial(n))
```

Output

```
n = 15
1307674368000
```

Task-8: Write a python program to display the multiplication table.

```
task-8.py

# Write a python program to display the multiplication table.

def multiplication_table(n):
    try:
        n = int(n)
        for i in range(1, 11):
            print(f"{n} x {i} = {n*i}")
    except ValueError:
        print("Invalid input. Please enter an integer.")

# Example usage
n = input("n = ")
multiplication_table(n)
```

Output

```
n = 6
6 x 1 = 6
6 x 2 = 12
6 x 3 = 18
6 x 4 = 24
6 x 5 = 30
6 x 6 = 36
6 x 7 = 42
6 x 8 = 48
6 x 9 = 54
6 x 10 = 60
```

Task-9: Write a python function that takes a number as input and returns whether it's a prime number or not.

```
task-9.py

# Write a python function that takes a number as input and returns whether it's a prime number
# or not.

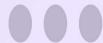
def is_prime(n):
    try:
        n = int(n)
        if n <= 1:
            return False
        elif n == 2:
            return True
        else:
            for i in range(2, n):
                if(n % i == 0):
                    return False
            return True
    except ValueError:
        return "Invalid input. Please enter an integer.

# Example usage
n = input("n = ")
print(is_prime(n))
```

Output

```
n = 12
False
```

Task-10: Write python program to swap two numbers using function.



task-10.py

```
# Write python program to swap two numbers using function.

def swap(a, b):
    try:
        a, b = float(a), float(b)
        return b, a
    except ValueError:
        return "Invalid input. Please enter numeric values."

# Example usage
a, b = input("a = "), input("b = ")
print(swap(a, b))
```

Output

```
a = 15
b = 13
(13.0, 15.0)
```