

**Course Title: OOP II**

**Course Code: CSE 234**

**Lab task: 01**

**Submitted To:**

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**Task 1:**

a=int(input())

b=int(input())

print("Sum = "+str(a+b))

print("Product = "+str(a\*b))

print("Difference = "+str(a-b))

**Sample Input:**

4

5

## Sample Output:

Sum = 9

Product = 20

Difference = -1

**Task 2:**

import math

r=float(input())

area=(math.pi\*r\*\*2)

print("Area is "+str(area))

Circumference= (2\*math.pi\*r)

print("Circumference is "+str(Circumference))

**Sample Input:**

4

## Sample Output:

Area is 50.26548245743669

Circumference is 25.132741228718345

**Task 3:**

a=int(input())

b=int(input())

if a>b:

    print("First is greater")

elif b>a:

    print("Second is greater")

else:

    print("The numbers are equal")

## Sample Input 1:

7

3

## Sample Output 1:

First is greater

**Task 4:**

a=int(input())

b=int(input())

if (b>a):

    temp=a

    a=b

    b=temp

print(a-b)

## Sample Input 1:

-40

-4

## Sample Output 1:

36

**Task 5:**

a=int(input())

if (a%2==0):

    print("The number is even")

else:

    print("The number is odd")

## Sample Input 1:

7

## Sample Output 1:

The number is odd

**Task 6:**

a=int(input())

if a%2==0 or a%5==0 :

    print(a)

else:

    print("Not a multiple of 2 OR 5")

## Sample Input 1:

3

## Sample Output 1:

Not a multiple of 2 OR 5

**Task 7:**

a=int(input())

if a%2==0 and a%5==0:

    print("Multiple of 2 and 5 both")

elif a%2==0 or a%5==0:

    print(a)

else:

    print("Not a multiple we want")

## Sample Input 1:

17

## Sample Output 1:

Not a multiple we want

**Task 8:**

a=int(input())

if a%2==0 and a%5==0:

    print(a)

else:

    print("Not multiple of 2 and 5 both")

## Sample Input 1:

30

## Sample Output 1:

30

**Task 9:**

s=int(input())

h=(s//(60\*60))

s=(s%(60\*60))

m=(s//60)

s=(s%60)

print("Hours: "+str(h)+" Minutes: "+str(m)+" Seconds: "+str(s))

## Sample Input 1:

10000

## Sample Output 1:

Hours: 2 Minutes: 46 Seconds: 40

**Task 10:**

h = int(input())

b = 0

if h < 0:

    print("Hour cannot be negative")

else:

    if h > 40:

         b = h-40

         h=40

    print((h\*200)+(b\*300))

## Sample Input 1:

100

## Sample Output 1:

26000

## Sample Input 2:

30

## Sample Output 2:

6000

**Task 11:**

s=int(input())

l=0

if s<100:

    l=(3000-(125\*s\*\*2))

else:

    l=(12000/(4+((s\*\*2)/14900)))

print(l)

## Sample Input 1:

120

## Sample Output 1:

2416.2162162162163

**Task 12:**

h=int(input())

if h>=4 and h<=6:

    print("Breakfast")

elif h>=12 and h<=13:

    print("Lunch")

elif h>=16 and h<=17:

    print("Snacks")

elif h>=19 and h<=20:

    print("Dinner")

else:

    if h<0 or h>23:

        print("Wrong time")

    else:

        print("Patience is a virtue")

## Sample Input 1:

4

## Sample Output 1:

Breakfast

**Task 13:**

a=int(input())

if(a<0 or a>100):

    print("Invalid Mark")

else:

    if a>=90 and a<=100:

        print("A")

    elif a>=80 and a<=89:

        print("B")

    elif a>=70 and a<=79:

        print("C")

    elif a>=60 and a<=69:

        print("D")

    elif a>=50 and a<=59:

        print("E")

    else:

        print("F")

## Sample Input 1:

90

## Sample Output 1:

A

**Task 14:**

a=int(input())

b=int(input())

a=(a/1000)

b=(b/3600)

if (a/b)<60:

    print(str(a/b)+"km/h"+"\nToo slow. Needs more changes.")

elif (a/b)>=60 and (a/b)<=90:

    print(str(a/b)+"km/h"+"\nVelocity is okay. The car is ready!")

else:

    print(str(a/b)+"km/h"+"\nToo fast. Only a few changes should suffice.")

## Sample Input 1:

160000

7200

## Sample Output 1:

80.0 km/h

**Task 15:**

a=float(input())

b=int(input())

if b<30 or a<3.80:

    print("The student is not eligible for a waiver")

else:

    if a>=3.80 and a<=3.89:

        print("The student is eligible for a waiver of 25 percent.")

    elif a>=3.90 and a<=3.94:

        print("The student is eligible for a waiver of 50 percent.")

    elif a>=3.95 and a<=3.99:

        print("The student is eligible for a waiver of 75 percent.")

    else:

        print("The student is eligible for a waiver of 100 percent.")

## Sample Input 1:

3.93

78

## Sample Output 1:

The student is eligible for a waiver of 50 percent.

**Task 16:**

|  |
| --- |
| **Output** |
| 11 |
| 9 |
| 5 |
| 32 |
| 14 |

**Task 17:**

|  |  |
| --- | --- |
| **result1** | True |
| **result2** | False |
| **result3** | True |
| **result4** | True |
| **result5** | False |
| **result6** | True |
| **result7** | False |
| **result8** | True |
| **result9** | False |
| **result10** | False |

**Task 18:**

|  |  |
| --- | --- |
| **result1** | False |
| **result2** | False |
| **result3** | True |
| **result4** | False |
| **result5** | False |

|  |  |
| --- | --- |
| **result6** | True |
| **result7** | False |
| **result8** | False |
| **result9** | False |
| **result10** | True |

**Task 19:**

|  |  |
| --- | --- |
| **result1** | False |
| **result2** | True |
| **result3** | True |
| **result4** | True |
| **result5** | True |
| **result6** | True |
| **result7** | False |
| **result8** | True |
| **result9** | True |
| **result10** | False |