**Task 1(HW)**

**Example 1**

print("My name is Ansar")  
print("My email adress is abdykadyrovich.02@gmail.com")

**Example 2**

name=input()  
print("Hello",name)

**Example 3**

width=float(input())  
length=float(input())  
area=width\*length  
print(area,"meters")

**Example 4**

width=int(input())  
length=int(input())  
area=(width\*length)/43560  
print(area,'acres')

**Example 5**

small\_c=float(input())  
large\_c=float(input())  
refund=small\_c\*0.1+large\_c\*0.25  
print("Refund for containers is:",round(refund,2),"$")

**Example 6**

price\_meal=float(input("Write the price of the meal:"))  
print("Tip amount is 18%")  
total\_price=price\_meal+price\_meal\*18/100  
print("Total price is:",round(total\_price,2),"$")

**Example 7**

n = int(input("Enter a positive integer: "))  
sum = n \* (n + 1) / 2  
print("The sum of the first", n, "positive integers is", sum)

**Example 8**

numOfWidgets = input ("Enter your number of widgets: ")  
numofGizmos = input ("Enter your number of Gizmos: ")  
  
converts1 = int(numOfWidgets)  
convert2 = int(numofGizmos)  
  
weightOfWidgets = converts1 \* 75  
weightOfGizmos = convert2 \* 112  
  
totalWeight = weightOfGizmos + weightOfWidgets  
  
convert3 = str(totalWeight)  
  
print ("The total weight of the order is " + convert3)

**Example 9**

in\_bal=int(input("Initial balance is:"))  
ad\_bal=4  
bal\_1year=in\_bal+(in\_bal\*4/100)  
bal\_2year=bal\_1year+(in\_bal\*4/100)  
bal\_3year=bal\_2year+(in\_bal\*4/100)  
print("Total balance in 1 year is",round(bal\_1year,2))  
print("Total balance in 2 year is",round(bal\_2year,2))  
print("Total balance in 3 year is",round(bal\_3year,2))

**Example 10**

import math  
a=int(input())  
b=int(input())  
sum=a+b  
dif=a-b  
pr=a\*b  
quot=a//b  
rem=a%b  
res1=math.log10(a)  
res2=a\*\*b;  
  
print("The sum of a and b:",sum)  
print("The difference when b is subtracted from a:",dif)  
print("The product of a and b:",pr)  
print("The quotient when a is divided by b:",quot)  
print("The remainder when a is divided by b:",rem)  
print("The result of log10 a:",res1)  
print("The result of a\*\*b:",res2)

**Example 11**

mpg=int(input("Miles per gallon is:"))  
L\_hun\_km=235.21/mpg  
print(round(L\_hun\_km,2),"L/100km")

**Example 12**

import math  
t1=float(input())  
g1=float(input())  
t2=float(input())  
g2=float(input())  
  
distance=6371.01\*math.acos(math.sin(t1)\*math.sin(t2)+math.cos(t1)\*math.cos(t2)\*math.cos(g1-g2))  
print(distance)

**Example 14**

print("Input your height: ")  
h\_ft = int(input("Feet: "))  
h\_inch = int(input("Inches: "))  
  
h\_inch += h\_ft \* 12  
h\_cm = round(h\_inch \* 2.54, 1)  
  
print("Your height is :", h\_cm)

**Example 15**

d\_ft = int(input("Input distance in feet: "))  
d\_inches = d\_ft \* 12  
d\_yards = d\_ft / 3.0  
d\_miles = d\_ft / 5280.0  
  
print("The distance in inches is " , d\_inches)  
print("The distance in yards is " ,d\_yards)  
print("The distance in miles is ", d\_miles)

**Example 16**

from math import pi  
r = float(input ("Input the radius of the circle : "))  
  
print ("The area of the circle with radius " + str(r) + " is: " + str(pi \* r\*\*2))  
print ("The volume of the circle with radius " + str(r) + " is: " + str(4/3\*pi \* r\*\*3))

**Example 17**

HEAT\_CAPACITY = 4.186  
J\_TO\_KWH = 2.777e-7  
  
volume = float(input("Enter amount of water in milliliters: "))  
temp = float(input("Enter amount of temperature increase (degrees Celsius): "))  
price = float(input("Enter electricity cost per unit: "))  
  
energy = volume \* temp \* HEAT\_CAPACITY  
kwh = energy \* J\_TO\_KWH  
cost = kwh \* price  
  
print("Amount of energy needed ", round(energy, 2), "Joules, which will cost", round(cost, 2))

**Example 18**

from math import pi  
  
height = float(input('Height of cylinder: '))  
radian = float(input('Radius of cylinder: '))  
volume = pi \* radian \* radian \* height  
sur\_area = ((2\*pi\*radian) \* height) + ((pi\*radian\*\*2)\*2)  
print("Volume is: ", round(volume,1))

**Example 19**

from math import sqrt  
  
gravity = 9.8  
height = float(input("Height from which object is dropped (in meters): "))  
  
velocity = sqrt(2 \* gravity \* height)  
  
print("Object will hit the ground at:" ,velocity,"m/s")

**Example 21**

b = int(input("Input the base : "))  
h = int(input("Input the height : "))  
  
area = b\*h/2  
print("Base =",b)  
print("Height =",h)  
print("Area =", area)

**Example 22**

a = int(input('Enter first side: '))  
b = int(input('Enter second side: '))  
c = int(input('Enter third side: '))  
  
s = (a + b + c) / 2  
  
area = (s\*(s-a)\*(s-b)\*(s-c)) \*\* 0.5  
print('The area of the triangle is:',area)

**Example 23**

import math  
from math import pi  
n=int(input("Enter the side: "))  
s=int(input("Enter the length: "))  
area=n\* (s \* s) / (4.0 \* math.tan(pi / n))  
print("Area of a regular polygon is:",area)

**Example 24**

SECONDS\_PER\_MINUTE = 60  
SECONDS\_PER\_HOUR = 3600  
SECONDS\_PER\_DAY = 86400  
  
days = int(input("Enter number of Days: "))  
hours = int(input("Enter number of Hours: "))  
minutes = int(input("Enter number of Minutes: "))  
seconds = int(input("Enter number of Seconds: "))  
  
total\_seconds = days \* SECONDS\_PER\_DAY  
total\_seconds = total\_seconds + (hours \* SECONDS\_PER\_HOUR)  
total\_seconds = total\_seconds + (minutes \* SECONDS\_PER\_MINUTE)  
total\_seconds = total\_seconds + seconds  
  
print("Total number of seconds: ", total\_seconds)

**Example 25**

time = int(input("Input time in seconds: "))  
day = time // (24 \* 3600)  
time = time % (24 \* 3600)  
hour = time // 3600  
time %= 3600  
minutes = time // 60  
time %= 60  
seconds = time  
print(day,":" ,hour,":", minutes,":", seconds)

**Example 26**

import time;  
  
localtime = time.asctime( time.localtime(time.time()) )  
print ("Local current time :", localtime)

**Example 27**

height = float(input("Enter your height in meters: "))  
weight = float(input("Enter your weight in kg: "))  
height1= float(input("Enter your height in inches: "))  
weight2 = float(input("Enter your weight in pounds: "))  
  
bmi1 = weight / (height\*height)  
bmi2= (weight / (height\*height))\*703  
print("Your Body Mass Index is:",bmi1)  
print("Your Body Mass Index is:",bmi2)

**Example 28**

WINDCHILL\_OFFSET = 13.12  
WINDCHILL\_FACTOR1 = 0.6215  
WINDCHILL\_FACTOR2 = -11.37  
WINDCHILL\_FACTOR3 = 0.3965  
WINDCHILL\_EXP = 0.16  
  
temp = float(input("Enter the air temperature in (degrees Celsius): "))  
speed = float(input("Enter the wind speed (kilometer per hour): "))  
  
wci = WINDCHILL\_OFFSET + (WINDCHILL\_FACTOR1 \* temp) + (WINDCHILL\_FACTOR2 \* speed \*\* WINDCHILL\_EXP) + (  
 WINDCHILL\_FACTOR3 \* temp \* speed \*\* WINDCHILL\_EXP)  
  
print("Your Wind Chill Index ",round(wci,1))

**Example 29**

celsius = float(input("Enter the temperature:"))  
  
fahrenheit = (celsius \* 1.8) + 32  
print(celsius,"degree Celsius is equal to",fahrenheit,"degree Fahrenheit")

**Example 30**

kpa = float(input("Input pressure in in kilopascals:"))  
psi = kpa / 6.89475729  
mmhg = kpa \* 760 / 101.325  
atm = kpa / 101.325  
print("The pressure in pounds per square inch:",round(psi,2))  
print("The pressure in millimeter of mercury:",round(mmhg,2))  
print("Atmosphere pressure:",round(atm,2))

**Example 31**

num = int(input("Input a four digit numbers: "))  
x = num //1000  
x1 = (num - x\*1000)//100  
x2 = (num - x\*1000 - x1\*100)//10  
x3 = num - x\*1000 - x1\*100 - x2\*10  
print("The sum of digits in the number is:", x+x1+x2+x3)

**Example 32**

a=int(input())  
b=int(input())  
c=int(input())  
sm\_n=min(a,b,c)  
lar\_n=max(a,b,c)  
mid\_n=a+b+c-lar\_n-sm\_n  
print(sm\_n,mid\_n,lar\_n)