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| EX: 3  Date: 30/12/2023 | Python Programming Using Conditional Statements and Structures |

1.GREATEST OF THREE NUMBERS

**Program**

a=int(input("Enter number 1 : "))

b=int(input("Enter number 2 : "))

c=int(input("Enter number 3 : "))

if(a>b and a>c):

greater=a

elif(b>a and b>c):

greater=b

else:

greater=c

print("The greatest value is : ",greater)

**Output**

Enter number 1 : 12

Enter number 2 : 16

Enter number 3 : 17

The greatest value is : 17

2.TO FIND ODD OR EVEN NUMBER

**Program:**

a=int(input("Enter a number to be checked for odd or even : "))

if (a%2==0):

print("The number is even...")

else:

print("The number is odd...")

**Output:**

Enter a number to be checked for odd or even : 5

The number is odd...

Enter a number to be checked for odd or even : 8

The number is even...

3.STUDENT GRADE ANALYSIS

**Program:**

m1=int(input("Enter Mark 1 M1 :"))

m2=int(input("Enter Mark 2 M2 :"))

m3=int(input("Enter Mark 3 M3 :"))

m4=int(input("Enter Mark 4 M4 :"))

m5=int(input("Enter Mark 5 M5 :"))

total=m1+m2+m3+m4+m5

avg=total/5

print("Your total is "+ str(total) + " Average is " + str(avg))

if(avg>=90):

print("Your grade is O !")

elif(avg>=80 and avg<90):

print("Your grade is A+ !")

elif(avg>=70 and avg<80):

print("Your grade is A !")

elif(avg>=60 and avg<70):

print("Your grade is B+!")

elif(avg>=50 and avg<60):

print("Your grade is B !")

else:

print("Your grade is U !")

**Output:**

Enter Mark 1 M1 :98

Enter Mark 2 M2 :95

Enter Mark 3 M3 :99

Enter Mark 4 M4 :100

Enter Mark 5 M5 :90

Your total is 482 Average is 96.4

Your grade is O !

4.CALCULATE THE ROOTS OF QUADRATIC EQUATIONS

**Program:**

a=int(input("Enter the coefficient of a : "))

b=float(input("Enter the coefficient of b : "))

c=int(input("Enter the coefficient of c : "))

det=(pow(b,2))-(4\*a\*c)

d1=pow(det,2)

d2=pow(det,2)

if(det>0): # Example equation x^2 + 3x + 2 = 0 answers is -1 and -2

root1=((-b)+pow(d1,0.5))/(2\*a)

root2=((-b)-pow(d1,0.5))/(2\*a)

print(int(root1)," ",int(root2))

elif(det<0): # Example equation x^2 + 4x + 5 = 0 answers is -2 +- i

w=-b/(2\*a)

x=((-b)+pow(d1,0.5))/(2\*a)

y=-b/(2\*a)

z=((-b)+pow(d1,0.5))/(2\*a)

print(str(w) + " + i" + str(int(x)))

print(str(y) + " - i" + str(int(z)))

else:

root=-b/(2\*a)

print(root)

**Output:**

Enter the coefficient of a : 1

Enter the coefficient of b : 3

Enter the coefficient of c : 2

-1 -2

Enter the coefficient of a : 1

Enter the coefficient of b : 4

Enter the coefficient of c : 5

-2 + i0 -2 - i0

5.TO CHECK VOTING ELIGIBLITY

**Program:**

n=int(input("Enter the Age : "))

if(n>=18):

print("You are eligible for Voting")

else:

print("You are not eligible for voting")

**Output:**

Enter the Age : 17

You are not eligible for voting

Enter the Age : 20

You are eligible for Voting

6.CHECK WHEATHER THE GIVEN CHARACTER IS UPPER OR LOWER CASE

**Program:**

a=input("Enter a character to be checked for Upper or Lower case : ")

x=ord(a)

if(x>=65 and x<=90):

print("The character is UPPERCASED !")

elif(x>=97 and x<=122):

print("The given character is LOWERCASED")

else:

print("Enter a Character !!!")

**Output:**

Enter a character to be checked for Upper or Lower case : a

The given character is LOWERCASED

Enter a character to be checked for Upper or Lower case : A

The character is UPPERCASED !

Enter a character to be checked for Upper or Lower case : 2

Enter a Character !!!