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| **EX:3**  **DATE:30/12/2022** | **Problem solving and python programing** |

**Program: calculate the root of quadratic equation**

a=float(input("enter the coefficient of x square:"))

b=float(input("enter the coefficient of x:"))

c=float(input("enter the constant term:"))

d= ((b\*b)- 4\*a\*c)

deno=2\*a

if(d>0):

print("reed root are:")

root1=(-b-d\*\*0.5)/deno

root2=(-b-d\*\*0.5)/deno

print("root1=",root1,"/t root2=",root2)

elif(d==0):

print("equal roots")

root1=-b/deno

print("root1 and root2=",root1)

else:

print("Imaginary roots")

**output:**

enter the coefficient of x square:1

enter the coefficient of x:8

enter the constant term:20

Imaginary roots

**Program: check eligibility to vote**

age=int(input("enter the age of voter:"))

if(age>=18):

print("eligible for voting")

else:

print("not eligible for voting")

**output:**

enter the age of voter:18

eligible forvoting

**Program:check a character is upper or lower**

ch=input("enter the character:")

if(ch.islower()):

print("the character is lower")

else:

print("the character is upper")

**output:**

enter the character:a

the character is lower

**program: find smaller of three number**

a=int(input("enter first number:"))

b=int(input("enter second number:"))

c=int(input("enter third number:"))

smaller=0

if a<b and a<c:

smaller=a

if b<a and b<c:

smaller=b

if c<b and c<a:

smaller=c

print("smaller",smaller)

**output:**

enter first number:3

enter second number:1

enter third number:2

smaller 1

**program:**

ch=input("enter the character:")

if(ch.islower()):

print(ch.upper())

**output**:

enter the character:a

A

**Program:**

num=1

weekdays=("sunday","monday","tuesday","thursday","friday","saturday")

for i in weekdays:

print(i,"-",num)

num=num+1

**output:**

sunday - 1

monday - 2

tuesday - 3

thursday - 4

friday - 5

saturday - 6