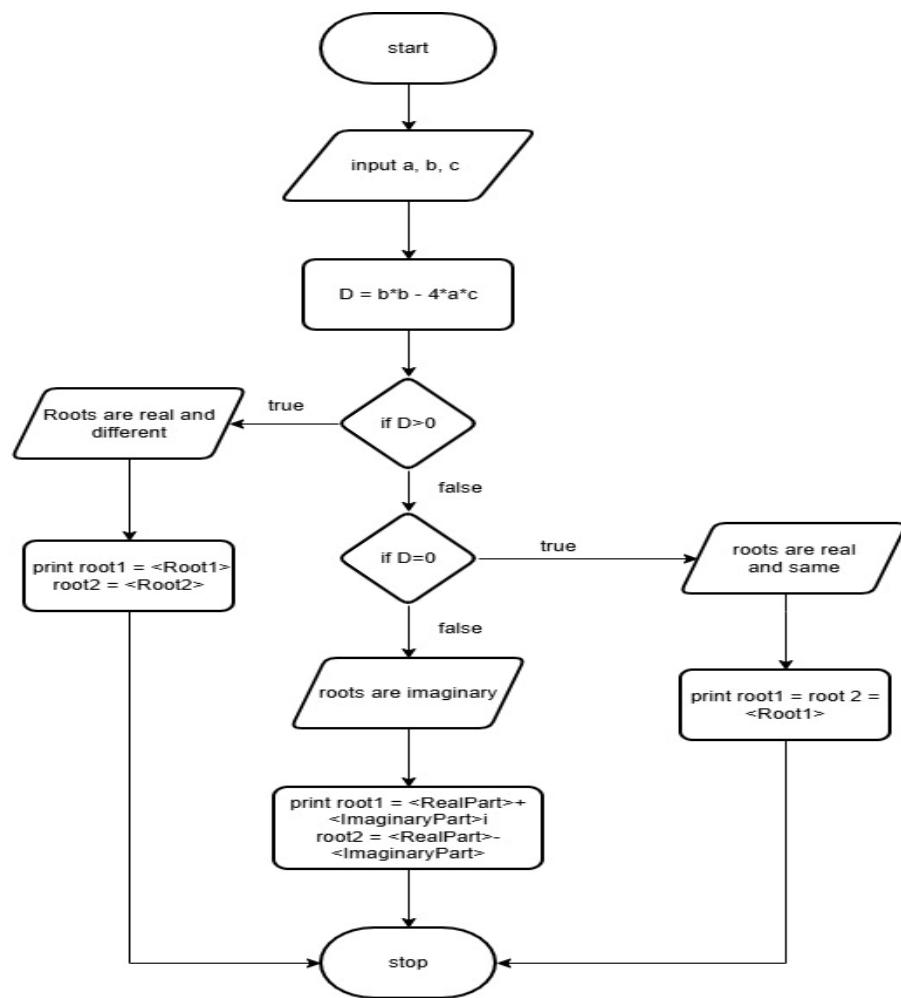


Flow chart

2.1.1



Algorithm: -

1. Start
2. Read values of a, b, and c
3. Calculate discriminant $D = b^2 - 4ac$
4. If $D > 0$
 - Find two real roots using the quadratic formula
 - Print both roots
5. If $D = 0$
 - Find one real root
 - Print the same root twice
6. If $D < 0$
 - Find real and imaginary parts
 - Print two imaginary roots
7. Stop

Flow chart

CODETANTRA [Home](#)

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2.1.1. Roots of a Quadratic Equation 41:35 A ⚡ -

Write a program to find the roots of a quadratic equation, given its coefficients a , b , and c . Use the quadratic formula:
$$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

The discriminant $D = b^2 - 4ac$ determines the nature of the roots:

- If $D > 0$: Roots are real and different
- If $D = 0$: Roots are real and the same
- If $D < 0$: Roots are imaginary

Input Format:

- Three space-separated integers representing the coefficients a , b , and c , respectively.

Output Format:

- If roots are real and different, print:

```
root1 = <Root1>
root2 = <Root2>
```

Sample Test Cases +

quadratic...

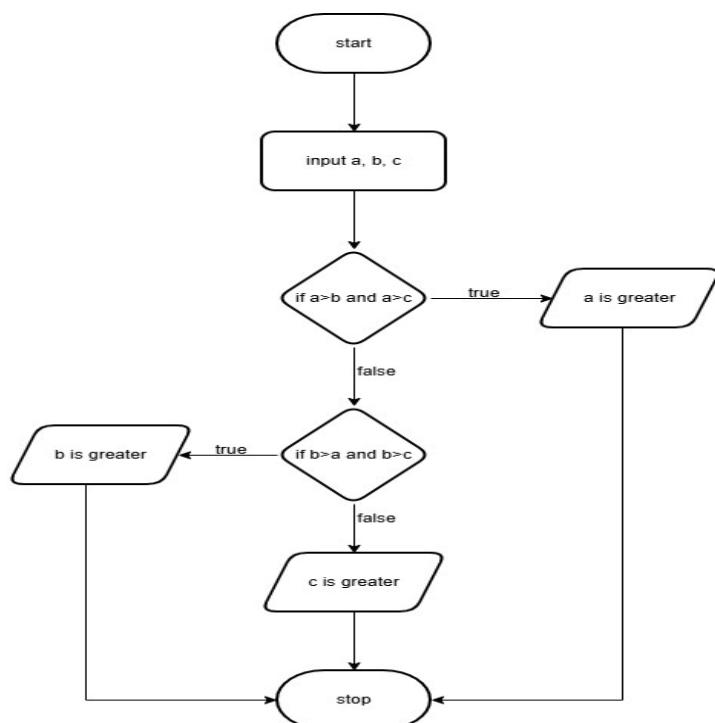
```
1 a,b,c = map(int,input().split())
2 d=(b*b)-4*a*c
3 sqrd=d**0.5
4 v if d>0:
5     root1 = (-b+sqrd)/(2*a)
6     root2 = (-b-sqrd)/(2*a)
7     print(f"root1 = {root1:.2f}")
8     print(f"root2 = {root2:.2f}")
9 v elif d==0:
10    root=-b/(2*a)
11    print(f"root1 = root2 = {root:.2f}")
12 v else:
13    sqrd = (-d)** 0.5
14    real_part=(-b)/(2*a)
15    imaginary_part=sqrd/(2*a)
16    print(f"root1 = {real_part.real:.2f}+{imaginary_part:.2f}i")
17    print(f"root2 = {real_part.real:.2f}-{imaginary_part:.2f}i")
```

Terminal Test cases

< Prev Reset Submit Next >

Flow chart

3.1.1



Algorithm: -

1. Start
2. Read three integers a, b, and c
3. If a is greater than both b and c, print a
4. Else if b is greater than both a and c, print b
5. Else, print c
6. Stop

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3.1.1. Largest of Three Numbers

Write a Python program that prompts the user to enter three integers. Print the largest of the three integers.

Input Format:
• The program will prompt the user to enter three integers, one per line.

Output Format:
• The output will display the largest integer among the three integers.

Sample Test Cases

Explorer largestNu... Submit Debugger

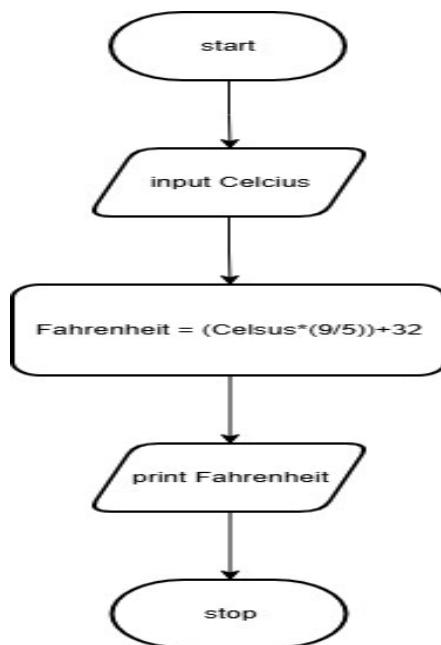
```
1 #write your code here...
2 a=int(input())
3 b=int(input())
4 c=int(input())
5 v if(a>b and a>c):
6   ---print(a)
7 v elif(b>a and b>c):
8   ---print(b)
9 v else:
10  ---print(c)
```

Terminal Test cases

< Prev Reset Submit Next >

Flow chart

3.1.2



Algorithm: -

1. Start
2. Read temperature in Celsius
3. Convert it to Fahrenheit using
$$F = (C \times 9/5) + 32$$
4. Print the Fahrenheit value (up to 2 decimal places)
5. Stop

The screenshot shows the CodeTantra IDE interface. The title bar says "CODETANTRA Home". The main area displays a Python program titled "3.1.2. Celsius to Fahrenheit". The code is:

```
1 # Type Content here...
2 celsius = float(input())
3 fahrenheit = (celsius*(9/5))+32
4 print(f"{fahrenheit:.2f}")
```

Below the code, there are sections for "Input Format" and "Output Format". The "Input Format" notes that a single line contains a float value representing the temperature in Celsius. The "Output Format" specifies that the temperature should be printed as a float value formatted to 2 decimal places.