X

(https://swayam.gov.in) (https://swayam.gov.in/nc_details/NPTEL)

200801199@rajalakshmi.edu.in

NPTEL (https://swayam.gov.in/explorer?ncCode=NPTEL) » Problem Solving Through Programming In C (course)

Click to register for Certification exam (https://examform.nptel.ac.in/2023_10/exam_form/dashboard)

If already registered, click to check your payment status

Course outline

- How does an NPTEL online course work? ()
- Week 0 : ()
- Week 1 ()
- Week 2 ()
- Week 3 ()
- Week 4 ()
- Week 5 ()

Week 4 : Programming Assignment 2

Due on 2023-08-24, 23:59 IST

The length of three sides are taken as input. Write a C program to find whether a triangle can be formed or not. If not display “This Triangle is NOT possible.” If the triangle can be formed then check whether the triangle formed is equilateral, isosceles, scalene or a right-angled triangle. (If it is a right-angled triangle then only print Right-angle triangle do not print it as Scalene Triangle).

Private Test cases used for evaluation	Input	Expected Output	Actual Output	Status
Test Case 1	10 4 6	Triangle is not possible	Triangle is not possible	Passed
Test Case 2	7 6 8	Scalene Triangle	Scalene Triangle	Passed

The due date for submitting this assignment has passed.
2 out of 2 tests passed.
You scored 100.0/100.

Assignment submitted on 2023-08-23, 20:44 IST

Your last recorded submission was :

```
#include<stdio.h>
int main()
{
    int a,b,c;
    scanf("%d %d %d",&a, &b, &c); /*The length of three sides are entered fro

/* Complete the program. Copy and paste from the printf statements mentioned

printf("Triangle is not possible");
printf("Right-angle Triangle");
printf("Isosceles Triangle");
printf("Equilateral Triangle");
printf("Scalene Triangle");
```

Week 6 ()

DOWNLOAD VIDEOS ()

Books ()

Text Transcripts ()

Problem Solving Session - July 2023 ()

```
14
15 */
16 if(a<(b+c)&&b<(c+a)&&c<(a+b))
17 {
18   if(a==b && b==c && a==c)
19   {
20     printf("Equilateral Triangle");
21   }
22   else if(a!=b &&b!=c && a!=c)
23   {
24   printf("Scalene Triangle");
25   }
26   else if(a==b ||a==c ||b==c)
27   {
28     printf("Isosceles Triangle");
29   }
30   else if((a*a)==(b*b)+(c*c)||(c*c)==(a*a)+(b*b)||(b*b)==(a*a)+(c*c))
31   {
32     printf("Right-angle Triangle");
33   }
34 }
35 else
36 {
37   printf("Triangle is not possible");
38 }
39 return 0;
40 }
```

Sample solutions (Provided by instructor)

```
1  #include<stdio.h>
2  int main()
3  {
4      int a,b,c;
5      scanf("%d %d %d",&a, &b, &c); /*The length of three sides are entered fro
6
7  /* Complete the program. Copy and paste from the printf statements mentioned
8
9  printf("Triangle is not possible");
10 printf("Right-angle Triangle");
11 printf("Isosceles Triangle");
12 printf("Equilateral Triangle");
13 printf("Scalene Triangle");
14
15 */
16 if(a<(b+c)&&b<(a+c)&&c<(a+b))
17     {
18         if(a==b&&a==c&&b==c)
19         printf("Equilateral Triangle");
20           else if(a==b||a==c||b==c)
21           printf("Isosceles Triangle");
22           else
23     if((a*a)==(b*b)+(c*c)||(b*b)==(a*a)+(c*c)||(c*c)==(a*a)+(b*b))
24         printf("Right-angle Triangle");
25         else if(a!=b&&a!=c&&b!=c)
26         printf("Scalene Triangle");
27     }
28     else
29     printf("Triangle is not possible");
30 }
```