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



If already registered, click to check your payment status

Week 8 : Programming Assignment 1

Due on 2023-09-21, 23:59 IST

Write a C Program to find HCF of 4 given numbers using recursive function

Private Test cases used for evaluationInput Expected Output Actual Output **Status**

Course outline

> How does an **NPTEL** online course work? ()

Week 0:()

Week 1 ()

Week 2 ()

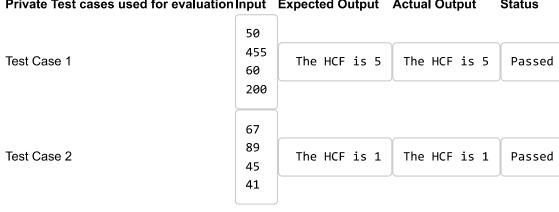
Week 3 ()

Week 4 ()

Week 5 ()

Week 6 ()

Week 7 ()



The due date for submitting this assignment has passed.

2 out of 2 tests passed.

You scored 100.0/100.

Assignment submitted on 2023-09-21, 20:08 IST

Your last recorded submission was :

while(x!=y)

```
1 #include<stdio.h>
 2 int HCF(int, int); //You have to write this function which calculates the HCF
   int main()
5
6
      int a, b, c, d, result;
      scanf("%d %d %d %d", &a, &b, &c, &d); /* Takes 4 number as input from the
7
      result = HCF(HCF(a, b), HCF(c,d));
printf("The HCF is %d", result);
8
9
10 }
   //Complete the rest of the program to calculate HCF
12
   int HCF(int x,int y)
13
14
```

```
Week 8 ()
```

Week 9 ()

Week 10 ()

Week 11 ()

Week 12 ()

DOWNLOAD VIDEOS ()

Books ()

Text
Transcripts ()

Problem Solving Session -July 2023 ()

```
16
17
        if(x>y)
18
           return HCF(x-y,y);
19
20
21
        else
22
23
        {
           return HCF(x,y-x);
24
25
        }
26
      return x;
27 }
```

```
Sample solutions (Provided by instructor)
```

```
1 #include<stdio.h>
 int HCF(int, int); //You have to write this function which calculates the HCF
 4
5
    int main()
        int a, b, c, d, result; scanf("%d %d %d %d", &a, &b, &c, &d); /* Takes 4 number as input from the result = HCF(HCF(a, b), HCF(c,d)); printf("The HCF is %d", result);
 6
 7
8
 9
10 }
11
    //Complete the rest of the program to calculate HCF int HCF(int \mathbf{x}, int \mathbf{y})
12
13
14
    {
15
         while (x != y)
16
17
             if (x > y)
18
               {
                    return HCF(x - y, y);
19
20
               }
21
22
              else
23
24
25
26
27 }
              return HCF(x, y - x);
               }
          return x;
```

