

Course: OOPS Session: IO Operations Question Information: Level 1 Challenge 1

Problem

Problem Description:
Rohan is planning to go to swimming classes.
He would prefer to enroll in the center which has the swimming pool of a greater area.
In the first center that he visited, the swimming pool is a circular shape(radius=r).
In the next center that he visited, the swimming pool is of a square shape [side=s].
Create a programming logic that will help him to make the choice of the swimming pool.

Function Description:
If the Pool is circular in shape then Area = $\pi * r * r$, Where $\pi = 3.14$
If the Pool is Square in shape then Area = $s * s$

Constraints:
1<=r<=100
1<=s<=100

Input format:
The first line of input has single value of type integer representing the radius of swimming pool in center 1.
The second line of input has single value of type integer representing the sides of swimming pool in center 2.

Output format:
In the only line of output print the name of the center with greater area of swimming pool.

Logical Test Cases

| Test Case 1 | Test Case 2 |
|---------------|---------------|
| INPUT (STDIN) | INPUT (STDIN) |

```
#include <iostream>

using namespace std;

int main()
{
    int r,s,cpool,spool;

    cin>>r>>s;

    cpool=3.14*r*r;

    spool=s*s;

    if(cpool>spool)
        cout<<"I Prefer Centre 1";

    else
        cout<<"I Prefer Centre 2";

    return 0;
}
```

Course: OOPS Session: IO Operations Question Information: Level 1 Challenge 2

Problem

Problem Description:

Arav and Aaron are participating in the Bike racing.

Arav have crossed some milestones earlier and Aaron crossed some milestones earlier during their racing, because they have changed their speeds at different times.

Both of them like to know the difference in speeds between them at different stages of racing.

Can you help finding the speed difference between Arav and Aaron?

Constraints:

20< aravspeed ≤100

20< aaronspeed ≤100

Input Format :

The first line of input represents the speed of Arav.

The second line of input represents the speed of Aaron.

Output Format:

Print difference between the driving speed of two participants in a single line.

Logical Test Cases

| Test Case 1 | Test Case 2 |
|-----------------|-----------------|
| INPUT (STDIN) | INPUT (STDIN) |
| 74 51 | 76 89 |
| EXPECTED OUTPUT | EXPECTED OUTPUT |

```
#include <iostream>

using namespace std;

int main()
{
    int aravspeed, aaronspeed, speeddiff;

    cin >> aravspeed >> aaronspeed;

    if (aravspeed > aaronspeed)
        speeddiff = aravspeed - aaronspeed;
    else
        speeddiff = aaronspeed - aravspeed;

    cout << speeddiff;

    return 0;
}
```

```
#include <iostream>
```

```
using namespace std;
```

```
int main() {
```

```
    int bro1,bro2,bro3;
```

```
    cin>>bro1>>bro2>>bro3;
```

```
    if(bro1>bro2) {
```

```
        if(bro1>bro3)
```

```
            cout<<bro1;
```

```
        else
```

```
            cout<<bro3;
```

```
    }
```

```
    else if(bro2>bro3)
```

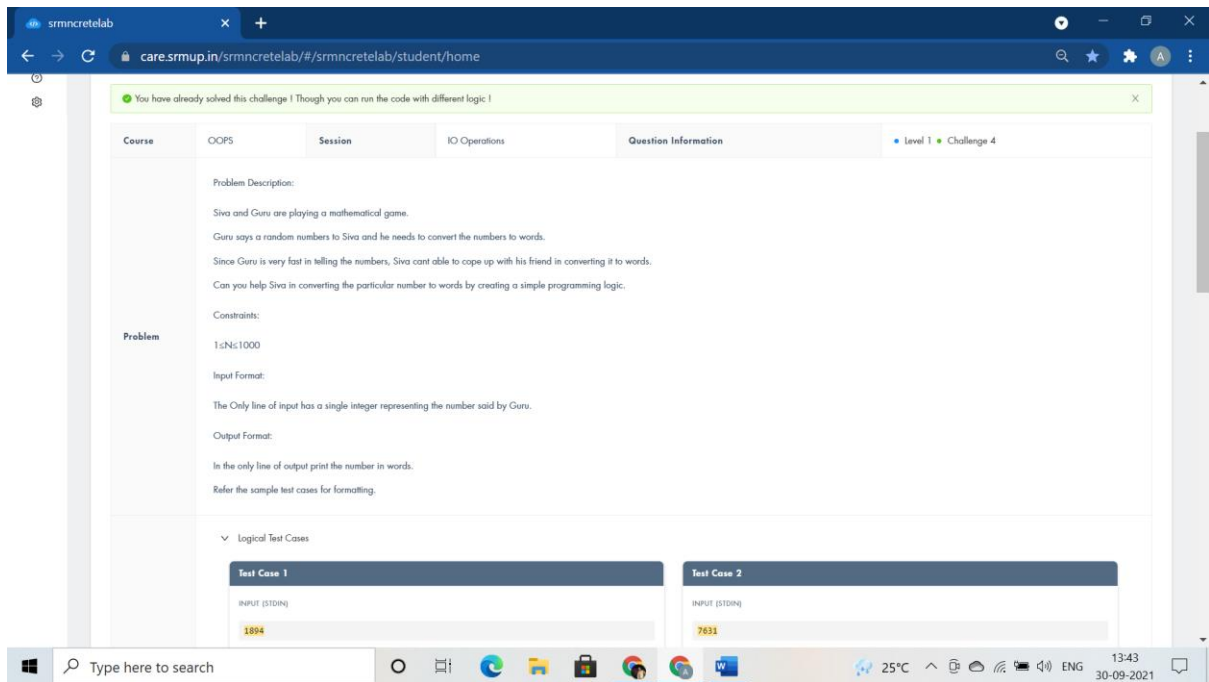
```
        cout<<bro2;
```

```
    else
```

```
        cout<<bro3;
```

```
        return 0;
```

```
}
```



```
#include <iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
    int n,dig=0,rem;
```

```
    cin>>n;
```

```
    while(n!=0)
```

```
    {
```

```
        rem=n%10;
```

```
        dig=dig*10+rem;
```

```
        n/=10;
```

```
    }
```

```
    while(dig!=0)
```

```
    {
```

```
        rem=dig%10;
```

```
        switch(rem)
```

```
        {
```

```
            case 0:
```

```
    cout<<"Zero ";
    break;
    case 1:
    cout<<"One ";
    break;
    case 2:
    cout<<"Two ";
    break;
    case 3:
    cout<<"Three ";
    break;
    case 4:
    cout<<"Four ";
    break;
    case 5:
    cout<<"Five ";
    break;
    case 6:
    cout<<"Six ";
    break;
    case 7:
    cout<<"Seven ";
    break;
    case 8:
    cout<<"Eight ";
    break;
    case 9:
    cout<<"Nine ";
    break;
};
dig/=10;
```

```

    }

    return 0;
}

```

The screenshot shows a web browser window with the URL `care.srmup.in/srmncretelab/#/srmncretelab/student/home`. A green notification bar at the top states: "You have already solved this challenge! Though you can run the code with different logic!". Below this, a navigation bar includes tabs for "Course", "OOPS", "Session", "IO Operations", and "Question Information". The "Question Information" tab is active, showing "Level 1" and "Challenge 5".

The main content area displays the "Problem" section for "Memorable Coin". The problem description states: "Armstrong was one of the greatest scientist. The Indian Science Council decided to design on Memorable Coin with many numbers printed on it in memory of Great Armstrong. But ISC is looking for a criteria to decide which numbers need to be printed on the Prestigious Gold Coin. There was a suggestion given by the Members of Indian Science Council. If the sum of the cube of each number is again equal to the number then that particular number can be added into the coin. Kindly help the Indian Science Council to implement the task by writing a simple programming logic."

The constraints are: "1 ≤ numbers ≤ 1000". The input format is: "Only line of input has a single integer representing the number." The output format is: "In the only line of output print as 'Part of Memorable Coin' or 'Not a Part of Memorable Coin' based on the condition."

Below the problem description, there are two tabs for "Logical Test Cases": "Test Case 1" and "Test Case 2". Both tabs show "INPUT (STDIN)".

```

#include <iostream>

using namespace std;

int main()
{
    int number,num,rem,result=0;

    cin>>number;

    num=number;

    while(num!=0) {

        rem = num%10;

        result+=rem*rem*rem;

        num/=10;
    }
}

```

```

}

if(result==number)

cout<<"Part of Memorable Coin";

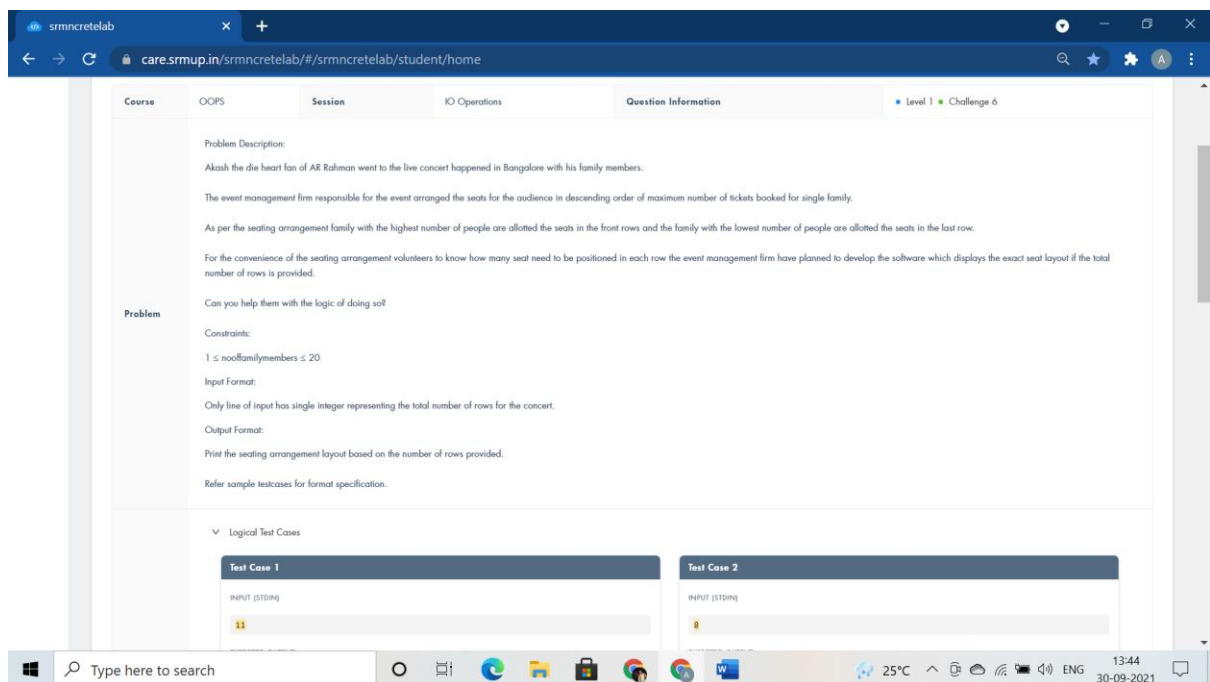
else

cout<<"Not a Part of Memorable Coin";

    return 0;

}

```



```

#include <iostream>

using namespace std;

int main()
{
    int nooffamilymembers,i,j;
    cin>>nooffamilymembers;
    for(i=nooffamilymembers;i>0;i--)
    {
        for(j=0;j<i;j++)

```

```

        cout<<i<<" ";

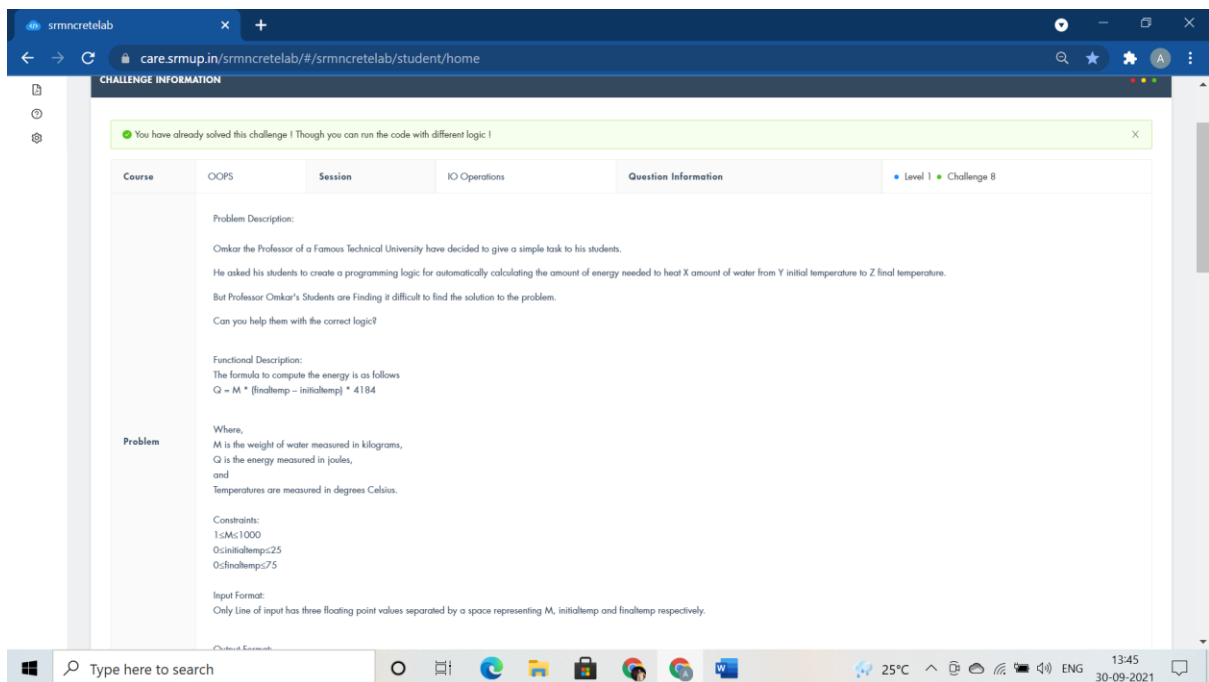
        cout<<endl;

    }

    return 0;

}

```



```

#include <iostream>

using namespace std;

int main()
{
    int M,initialtemp,finaltemp;

    float Q;

    cin>>M>>initialtemp>>finaltemp;

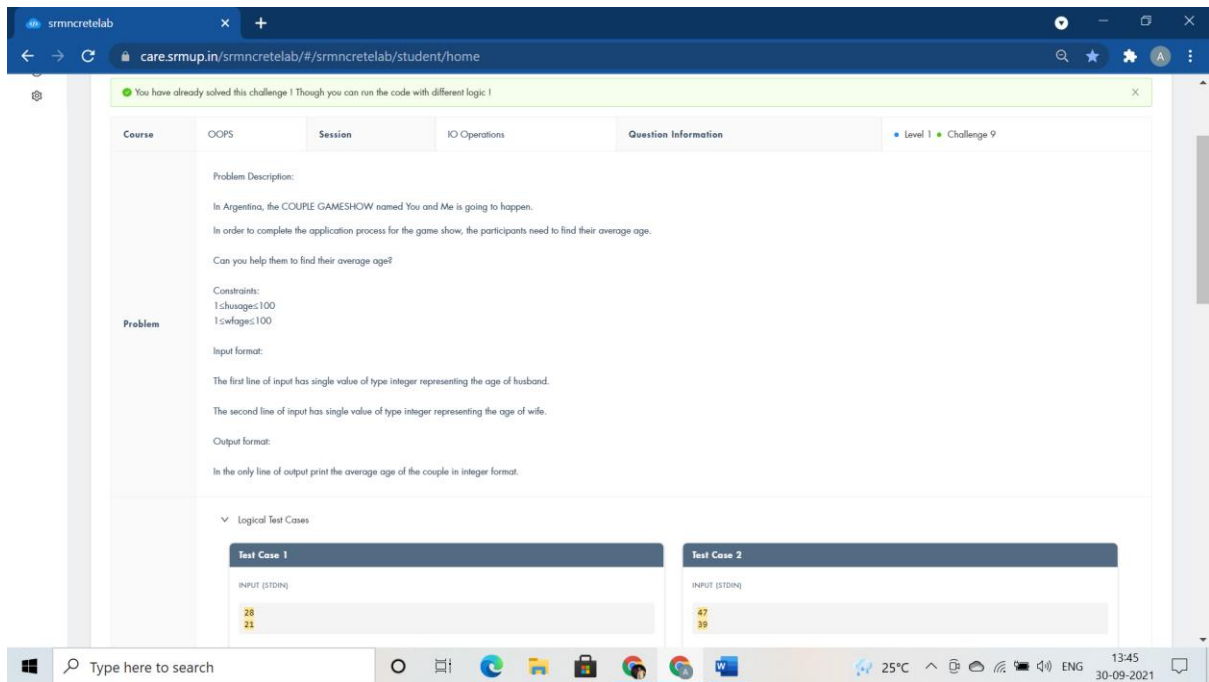
    Q=M*(finaltemp - initialtemp)*4184;

    cout<<" "<<Q;

    return 0;

}

```

```
#include <iostream>

using namespace std;

int main()
{
    int husage,wfage,coupleavgage;

    cin>>husage>>wfage;

    coupleavgage=(husage+wfage)/2;

    cout<<"I am "<<husage<<endl<<"You are "<<wfage<<endl<<"We are around "<<coupleavgage;

    return 0;
}
```

```
#include <iostream>

using namespace std;

int main()
{
    int weightinearth;
    cin>>weightinearth;
    float weightinmoon;
    weightinmoon=0.166*weightinearth;
    cout<<weightinmoon;
    return 0;
}
```