

Write a program to Add two fractions

Description

Get the values for numerator and denominator of two fractions, then add that fractions. Consider the following format

$$x_3/y_3 = (x_1/y_1) + (x_2/y_2)$$

$$\text{here } x_3 = (x_1 * y_2) + (x_2 * y_1)$$

$$\text{and } y_3 = (y_1 * y_2)$$

Input

2 3

4 3

Output

2/1

C Program

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    int x1,y1,x2,y2,x3,y3,Div,i;
```

```
    printf("Enter value for x1 and y1: ");
```

```
    scanf("%d%d",&x1,&y1);
```

```
    printf("Enter value for x2 and y2: ");
```

```
    scanf("%d%d",&x2,&y2);
```

```
    x3=(x1*y2)+(x2*y1);
```

```
    y3=y1*y2;
```

```
    if(x3>y3)
```

```
        Div=y3;
```

```
    else
```

```
        Div=x3;
```

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```
for(i=Div;i>0;i--)
{
    if(x3%i==0 && y3%i==0)
    {
        x3=x3/i;
        y3=y3/i;
    }
}

printf("Sum of two fractions is %d/%d",x3,y3);
```

```
return 0;
}
```

C++ Program

```
#include <iostream>
using namespace std;
int main()
{
    int x1,y1,x2,y2,x3,y3,Div,i;
    cout<<"Enter value for x1 and y1: ";
    cin>>x1>>y1;
    cout<<"Enter value for x2 and y2: ";
    cin>>x2>>y2;
    x3=(x1*y2)+(x2*y1);
    y3=y1*y2;
    if(x3>y3)
        Div=y3;
```

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```
else
Div=x3;
for(i=Div;i>0;i--)
{
    if(x3%i==0 && y3%i==0)
    {
        x3=x3/i;
        y3=y3/i;
    }
}
cout<<"Sum of two fractions is "<<x3<<"/"<<y3;
return 0;
}
```

Java Program

```
import java.util.Scanner;
public class Main
{
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.print("Enter the value for x1 and y1: ");
        int x1=sc.nextInt();
        int y1=sc.nextInt();
        System.out.print("Enter the value for x2 and y2: ");
        int x2=sc.nextInt();
        int y2=sc.nextInt();
        int Div;
        int x3=(x1*y2)+(x2*y1);
        int y3=y1*y2;
```

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```
if(x3>y3)
    Div=y3;
else
    Div=x3;
for(int i=Div;i>0;i--)
{
    if(x3%i==0&&y3%i==0)
    {
        x3=x3/i;
        y3=y3/i;
    }
}
System.out.print("Sum of fractions is "+x3+"/"+y3);
}
```

Python

```
x1=int(input("Enter value for x1: "))
y1=int(input("Enter value for y1: "))
x2=int(input("Enter value for x2: "))
y2=int(input("Enter value for y2: "))
x3 = (x1*y2)+(x2*y1)
y3 = y1*y2
div=0
if(x3>y3):
    div=y3
else:
    div=x3
for i in range(div,0,-1):
```

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```
if(x3%i==0 and y3%i==0):  
    x3=x3//i  
    y3=y3//i  
print("Sum of fractions is",x3,"/",y3)
```



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