Addition and Subtraction of Rational Numbers

using System;

namespace Rational

{

class Program

{

static void Main(string[] args)

{

Rational bb = new Rational();

Rational cc = new Rational(3);

Rational dd = new Rational(3, 2);

Rational other = new Rational(5, 6);

Console.WriteLine($"Number 1:{bb.ToString()}");

Console.WriteLine($"2nd Number:{cc.ToString()}");

Console.WriteLine($"3rd Number:{dd.ToString()}");

Console.WriteLine($"4th Number:{other.ToString()}");

dd.IncreaseBy(other);

Console.WriteLine($"Addition of {other.ToString()} with 3rd rational number = {dd.ToString()}");

cc.DecreaseBy(other);

Console.WriteLine($"Subtraction of {other.ToString()} from 2nd rational number = {cc.ToString()}");

}

}

class Rational

{

private int denominator, numerator;

public Rational(int numerator=0, int denominator=1)

{

this.denominator = denominator;

this.numerator = numerator;

}

public void IncreaseBy(Rational other)

{

if (this.denominator == other.denominator)

{

this.numerator = numerator + other.numerator;

}

else

{

this.numerator = (numerator \* other.denominator) + (other.numerator \* denominator);

this.denominator = (denominator\*other.denominator);

}

}

public void DecreaseBy(Rational other)

{

if (this.denominator== other.denominator)

{

this.numerator = numerator - (other.numerator);

}

else

{

this.numerator = (numerator \* other.denominator)-(other.numerator \* this.denominator);

this.denominator = (denominator \* other.denominator);

}

}

public override string ToString()

{

return $"Numerator is:{numerator} and Denominator is:{denominator}";

}

}

}

Output:

