08.04.2021 Goga Cătălin

```
#include <stdio.h>
#include <stdlib.h>
#include <math.h>
int cmmdc(int a, int b)
{
    if (a == b) return a;
    else if (a % b == 0) return b;
    else if (b % a == 0) return a;
    else
    { while (a != b)
        { if (a > b) a -= b;
          else b -= a;
        }
    } // return greatest comm. divisor
    return a;
}
```

```
int nextDenominator(int a, int b)
{return ceil((float)b / (float)a);}

void computeSum(int a, int b)
{
  int den, num; // values for the next
  // fraction
  printf("%d / %d = ", a, b);
  While(a > 1)
  { num = 1;
    den = nextDenominator(a, b);
    // print result
    printf("(%d/%d) + ", 1, den);
    // compute the lowest comm. multiple
    int lcm = (den * b) / gcd(den, b);
    // multiply the numerators by
    // the right value
    a *= (lcm / b);
    num *= (lcm / den);
    b = den = num; // subtract next fr.
    a -= num; // from current fr.
  } // print last fraction
  printf("(%d / %d", 1, den);
```

```
    printf("(%d / %d", i, den);
}
```

```
int main()
{ int num, denom;
  printf("Enter the numerator: ");
  scanf("%d", &num);
  printf("Enter the denominator: ");
  scanf("%d", &denum);
  computeSum(num, denum);
  return 0;
}
```