

Algorithm:

1. Start
2. Input  $N_1$  &  $D_1$
3. Input  $N_2$  &  $D_2$
4.  $N_3 = (N_1 * D_2) + (N_2 * D_1)$
5.  $D_3 = D_1 * D_2$
6. Repeat for ( $i=1$ ;  $i \leq N_3$  &  $i \leq D_3$ ;  $i++$ )  
    if ( $N_3 \% i == 0$  &  $D_3 \% i == 0$ )  
        gcd = i  
    end if  
end for.
7. Output  $N_3 / \text{gcd}$ ,  $D_3 / \text{gcd}$
8. Stop.

## Flowchart

