

```
package Oppgave5;

import static javax.swing.JOptionPane.*;

/*
Input: a and b integers (int), both integers must be positive,
since the calculation does not support negative numbers.

Result: the largest number that can be divided by a and b and produce an integer number.
*/

public class main {

    public static int eukildsAlgoritme (int a, int b) throws InvalidInputException{
        if(a < 0 || b < 0){
            throw new InvalidInputException("Tallet kan ikke være negativt");
        }

        while( a != b ) {
            if (a > b) {
                a = a - b;
            } else {
                b = b - a;
            }
        }

        assert (checkDivision(a,b));
        return a;
    }

    public static boolean checkDivision(int a, int b) {
        return a % b == 0;
    }

    public static void main(String [] args) throws InvalidInputException{

        String innstring1 = showInputDialog("Skriv inn et tall");
        String innstring2 = showInputDialog("Skriv inn et tall");

        try {
            int tall1 = Integer.parseInt(innstring1);
            int tall2 = Integer.parseInt(innstring2);

            showMessageDialog(null, eukildsAlgoritme(tall1, tall2));
        }
        catch (InvalidInputException e){
            showMessageDialog(null, e.getMessage());
        }
    }
}
```