

```
/**
 * Nombres entiers et boucles - algorithmes de base (versions avec des boucles pour / for).
 *
 * @author biech153 (Biersbach Chris) / gamca174 (Gamboa Carlos) / olial319 (Olinger Alex)
 * @version 28/03/2019 7:00:50
 * Classe: 3GIG
 */
public class SimpleCalculationWithOneInt
{
    private int n;

    public SimpleCalculationWithOneInt(int pN)
    {
        // 2 méthodes:
        n = Math.abs(pN);
        // ou:
        if (pN < 0)
            n = -pN;
        else
            n = pN;
    }

    public void printCountUp()
    {
        for (int i=0; i<=n; i++)
        {
            System.out.println(i);
        }
    }

    public void printCountDown()
    {
        for (int i=n; i>=0; i--)
        {
            System.out.println(i);
        }
    }

    public int calculateSum()
    {
        int sum = 0;

        for (int i=1; i<=n; i++)
        {
            sum = sum + i;
        }
        return sum;
    }

    public double calculateFactorial()
    {
        double factorial = 1;
        for (int i=1; i<=n; i++)
        {
            factorial = factorial * i;
        }
        return factorial;
    }
}
```