

```
/**
 * Nombres entiers et boucles - algorithmes de base.
 *
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 * 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()
    {
        int i = 0;
        while (i <= n)
        {
            System.out.println(i);
            i++;
        }
    }

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

    public int calculateSum()
    {
        int sum, i;
        sum = 0;

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

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