

# Exemple de test JUnit5

```
DEMO2_CalculFactorielleTest_transmis.java
package demo_JUnit5.test;

import static org.junit.Assert.*;
//import static org.junit.Assert.assertEquals;
//import static org.junit.Assert.assertFalse;
//import static org.junit.Assert.assertTrue;
import static org.junit.jupiter.api.Assertions.*;

import org.junit.jupiter.api.*;
//import org.junit.jupiter.api.AfterEach;
//import org.junit.jupiter.api.BeforeEach;
//import org.junit.jupiter.api.Test;

import item3_5_mieux.DEMO2_CalculFactorielle;

class DEMO2_CalculFactorielleTest_transmis {
    @BeforeEach
    void setUp() throws Exception {
    }

    @AfterEach
    void tearDown() throws Exception {
    }

    @Test public void testFactorielle1() {
        assertTrue("La factorielle de zero vaut 1",
            DEMO2_CalculFactorielle.factorielle(0) ==
1);
    }

    @Test public void testFactorielle2() {
        assertFalse("La factorielle de 1 vaut 1",
            DEMO2_CalculFactorielle.factorielle(1) !=
1) ;
    }

    @Test public void testFactorielle3() {
        assertEquals("La factorielle de 3 vaut 6",
            DEMO2_CalculFactorielle.factorielle(3),6)
;
    }

    @Test public void testFactorielle11() {
        assertThrows(IllegalArgumentException.class,
            ()->{DEMO2_CalculFactorielle.factorielle(21);},
            "La factorielle de 21 ne peut pas être calculé" );
    }
}
```

JUnit - Méthodes à utiliser  
pour vos assertions

## 1 Liste restreinte

méthode	Type d'assertion
assertEquals	« Les deux paramètres sont égaux »
assertFalse	« L'expression est à false »
assertNotNull	« La référence tient un objet »
assertNotSame	« Les références ne sont pas les mêmes »
assertNull	« La référence ne tient pas d'objet »
assertSame	« Les références sont identiques »
assertTrue	« L'expression est à vrai »
fail	Force l'échec du cas de test

## 2 Liste complète issue de la Javadoc

static void assertEquals(boolean expected, boolean actual)  
Asserts that two booleans are equal.

static void assertEquals(byte expected, byte actual)  
Asserts that two bytes are equal. static void assertEquals(char expected, char actual)  
Asserts that two chars are equal. static void assertEquals(double expected, double actual, double delta)  
Asserts that two doubles are equal concerning a delta. static void assertEquals(float expected, float actual, float delta)  
Asserts that two floats are equal concerning a delta. static void assertEquals(int expected, int actual)  
Asserts that two ints are equal. static void assertEquals(long expected, long actual)  
Asserts that two longs are equal. static void assertEquals(java.lang.Object expected, java.lang.Object actual)  
Asserts that two objects are equal. static void assertEquals(short expected, short actual)  
Asserts that two shorts are equal.

static void assertEquals(java.lang.String message, boolean expected, boolean actual)  
Asserts that two booleans are equal.

static void assertEquals(java.lang.String message, byte expected, byte actual)  
Asserts that two bytes are equal. static void assertEquals(java.lang.String message, char expected, char actual)  
Asserts that two chars are equal. static void assertEquals(java.lang.String message, double expected, double actual, double delta)  
Asserts that two doubles are equal concerning a delta. static void assertEquals(java.lang.String message, float expected, float actual, float delta)  
Asserts that two floats are equal concerning a delta. static void