

NUnit Calculator Test - Code & Output

1. Test Code

```
using NUnit.Framework;
using CalcLibrary;
using System;

namespace CalculatorUnitTests
{
    [TestFixture]
    public class SimpleCalculatorTests
    {
        private SimpleCalculator calc;

        [SetUp]
        public void Init()
        {
            calc = new SimpleCalculator();
        }

        [TearDown]
        public void Cleanup()
        {
            calc = null;
        }

        [Test]
        [TestCase(2, 3, 5)]
        [TestCase(-1, -1, -2)]
        public void Addition_ReturnsExpectedResult(double a, double b, double expected)
        {
            var result = calc.Addition(a, b);
            Assert.That(result, Is.EqualTo(expected));
        }

        [Test]
        public void Division_ByZero_ThrowsException()
        {
            var ex = Assert.Throws<ArgumentException>(() => calc.Division(5, 0));
            Assert.That(ex.Message, Is.EqualTo("Second Parameter Can't be Zero"));
        }
    }
}
```

```
}  
}  
}
```

2. Test Output Screenshot

The screenshot displays the Test Explorer window in Visual Studio. The main pane shows a tree view of test results. The 'CalculatorUnitTests' group is expanded, showing 13 individual tests, all of which passed. The 'UnitTest1' group is also expanded, showing one test, 'TestMethod1', which also passed. The right-hand pane provides a 'Group Summary' for 'CalculatorTests', indicating that 13 tests in the group passed with a total duration of 37 ms. The bottom status bar shows the system clock as 09:44 on 30-06-2023.

Test	Duration	Traits	Error Message
CalculatorUnitTests (14)	48 ms		
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CalculatorTests (13)	37 ms		
AllClear_ShouldResetResultToZero	1 ms		
Addition_WhenCalled_ReturnsCorrectResult	17 ms		
Division_WhenCalled_ReturnsCorrectResult	< 1 ms		
Multiplication_WhenCalled_ReturnsCorrectResult	< 1 ms		
Subtraction_WhenCalled_ReturnsCorrectResult	< 1 ms		
Division_ByZero_ThrowsArgumentException	19 ms		
UnitTest1 (1)	11 ms		
TestMethod1	11 ms		

Group Summary
CalculatorTests
Tests in group: 13
Total Duration: 37 ms
Outcomes
13 Passed