// File: CalculatorService.java

public interface CalculatorService {

    int add(int a, int b);

}

// File: MathApplication.java

public class MathApplication {

    private CalculatorService calculatorService;

    public void setCalculatorService(CalculatorService calculatorService) {

        this.calculatorService = calculatorService;

    }

    public int add(int a, int b) {

        return calculatorService.add(a, b);

    }

}

// File: MathApplicationTest.java

import org.junit.jupiter.api.Test;

import static org.mockito.Mockito.\*;

import static org.junit.jupiter.api.Assertions.\*;

public class MathApplicationTest {

    @Test

    public void testAddUsingMock() {

        CalculatorService mockService = mock(CalculatorService.class);

        when(mockService.add(10, 20)).thenReturn(30);

        MathApplication mathApp = new MathApplication();

        mathApp.setCalculatorService(mockService);

        int result = mathApp.add(10, 20);

        assertEquals(30, result);

    }

}

// File: MathApplicationVerifyTest.java

import org.junit.jupiter.api.Test;

import static org.mockito.Mockito.\*;

public class MathApplicationVerifyTest {

    @Test

    public void testVerifyAddInteraction() {

        CalculatorService mockService = mock(CalculatorService.class);

        MathApplication mathApp = new MathApplication();

        mathApp.setCalculatorService(mockService);

        mathApp.add(5, 3);

        // Verifying interaction

        verify(mockService).add(5, 3);

    }

}