

Unit Test for solution

```
import org.junit.jupiter.api.Test;

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

public class GameTest {

    @Test

    public void testGameResult_PlayerAWins() {

        Player playerA = new Player("Player A", 50, 5, 10);

        Player playerB = new Player("Player B", 100, 10, 5);

        Game game = new Game(playerA, playerB);

        game.start();

        assertTrue(playerA.getHealth() > 0 && playerB.getHealth() <= 0);

    }

    @Test

    public void testGameResult_PlayerBWins() {

        Player playerA = new Player("Player A", 100, 10, 5);

        Player playerB = new Player("Player B", 50, 5, 10);

        Game game = new Game(playerA, playerB);

        game.start();

        assertTrue(playerB.getHealth() > 0 && playerA.getHealth() <= 0);

    }

    @Test

    public void testPlayerTakeDamage() {

        Player playerA = new Player("Player A", 100, 10, 5);

        playerA.takeDamage(20);
```

```
        assertEquals(80, playerA.getHealth());
    }

    @Test
    public void testPlayerTakeDamage_HealthCannotBeNegative() {

        Player playerA = new Player("Player A", 100, 10, 5);

        playerA.takeDamage(120);

        assertEquals(0, playerA.getHealth());
    }
}
```