**Bug**: When a Player wins the game does not add the correct amount to the player balance.

**Hypothesis 1**: The Bug exists within the playRound method of the Game class.

Test: Check and see if the winnings variable set by the playRound method is accurate after method call. Also check player balance before and after.

Prediction: Winnings is accurate in terms of player profit.   
 Player balance increases incorrectly.

Result: Player received two matches but their balance only increased by 5.   
 Hypothesis confirmed.

**Hypothesis 2**: The parameters of the playRound method are sane.

Test: Check parameters before method call.

Prediction: Parameters are sane.

Result: Parameters are sane.   
 Hypothesis confirmed.

**Hypothesis 3**: The call of player.takeBet() incorrectly takes from the player balance.

Test: Check player balance before and after takeBet is called.

Prediction: Balance is 100 before method and 90 after.

Result: Player balance is 100 before but 95 after.   
 Hypothesis falsified.

**Hypothesis 4**: Line 43’s origins are sane.

Test: Check origins of variables and ensure correct values.

Prediction: Matches is not null and bet is 5.

Result: Matches corresponds with output and bet is 5.  
 Lines 43’s origins are sane.   
 Hypothesis confirmed.

**Hypothesis 5**: Line 43 is incorrectly calculating winnings.

Test: Check Winnings variable before and after.

Prediction: Winnings Before: 0   
 Winnings After: 10

Result: Winnings Before: 0   
 Winnings After: 15  
 Hypothesis Falsified.

**Hypothesis 6**: Line 46 is setting the player balance incorrectly.

Test: Check player balance before and after line 46.

Prediction: Balance Before: 100  
 Balance After: 110

Result: Balance Before: 100  
 Balance After: 110   
 Line 46 is infected.   
 Balance is sane before line 46 and insane after.   
 Hypothesis confirmed.

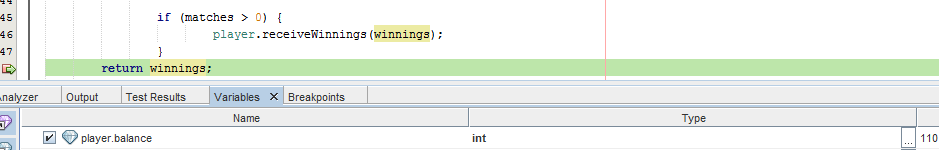
**Hypothesis 7**: Adding the bet amount to winnings when player balance is set on line 46 will remedy bug.

Test: Add bet to winnings when player balance is set.

Prediction: Balance will be 100 before and correctly set to 115 after.

Result: Balance is sane before and after line 46.   
 Bug is fixed.   
 Hypothesis confirmed.

Before bug fix:



After Bug fix:

