Test

During my planning, I outlined 5 test cases which should be used to verify that the final program is working appropriately. Each test case will now be tested, and the actual outcome will be provided.

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| Test | Description of Test | Test Data | Expected Outcome | Actual Outcome | Comments and Fixes |
| 1 | Check whether (x, y) coordinates are accepted, and accurately interpreted. | 1, 2 (1, 2)  1 2 | All three forms should be accepted, and a cross should accurately be placed in the middle-left square. | All three forms are accepted, and a cross is accurately be placed in the middle-left square. | Test passed. |
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| 2 | Check whether linear coordinates are accepted, and accurately interpreted. | 9 | 9 should be interpreted as square (3, 3) – bottom-right corner. | 9 should be interpreted as square (3, 3) – bottom-right corner. | Test passed. Although coordinates in the range 1 – 10 were valid, I thought it would be a good idea to accept coordinates which are out of range, and interpret them as the edge coordinates. I implemented this by accepting user input of any digit length, and taking the min and max values in the range 1 – 9, which would truncate user input. |
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| 3 | Check whether the game is won accurately by a player who places 3 symbols diagonally | 1  2  5  6  9 | First player should win. | First player (‘X’) wins. | Test passed. |
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| 4 | Check whether the game is drawn accurately when no lines of symbols match up. | 1  5  2  3  7  4  6  8  9 | Game should be drawn. | Game is drawn. | Test passed. |
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| 5 | Check whether invalid data is discarded. | Hello  10  (1, 20)  [empty line] | User should be requested input again, and the current round will be restarted. | User is requested input again, and the current round is restarted. | Test passed.  Due to the changes made in test 2, the program now accepts coordinate 10 as valid. To remedy this, I also implemented coordinate truncation for 2D coordinates, and re-tested the ‘(1, 20)’ test – this truncated to (1, 3). |
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