**See the topic's slides, the activity instructions, and the Programming Test Cases.docx**

The number of rows in the tables below are for convenience; they do not indicate the number of cases expected.

**Test Cases for the Black box program**

| **Description** | **+ / − Purpose** | **Data Input** | **Expected Output** | **Actual output if unexpected** | **Success?** | **Comments** |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | **String:** |  |  |  |  |
|  |  | Position: |  |  |  |  |
|  |  | Position: |  |  |  |  |
|  |  | Position: |  |  |  |  |
|  |  | Position: |  |  |  |  |
|  |  | Position: |  |  |  |  |
|  |  | **String:** |  |  |  |  |
|  |  | Position: |  |  |  |  |
|  |  | Position: |  |  |  |  |
|  |  | Position: |  |  |  |  |
|  |  | Position: |  |  |  |  |
|  |  | Position: |  |  |  |  |
|  |  | **String:** |  |  |  |  |
|  |  | Position: |  |  |  |  |
|  |  | Position: |  |  |  |  |
|  |  | Position: |  |  |  |  |
|  |  | Position: |  |  |  |  |
|  |  | Position: |  |  |  |  |

**Test Cases for the White box program.**

| **Description** | **+ / − Purpose** | **Data Inputs for X and O** | **Expected Output** | | **Actual output if unexpected** | **Success?** | **Comments** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Start program | Record initial condition | n/a | 1 2 3  4 5 6  7 8 9 |  |  |  | To copy a grid from terminal, hold [Alt] while click & drag to select. |
| Nominal test | + check recording of alternating moves to open grid positions | X > 1 O > 2 | **X** 2 3  4 5 6  7 8 9 | X **O** 3  4 5 6  7 8 9 |  |  |  |
|  |  | X >  O > |  |  |  |  |  |
|  |  | X >  O > |  |  |  |  |  |
|  |  | X >  O > |  |  |  |  |  |
|  |  | X >  O > |  |  |  |  |  |
|  |  | X >  O > |  |  |  |  |  |
|  |  | X >  O > |  |  |  |  |  |
|  |  | X >  O > |  |  |  |  |  |
|  |  | X >  O > |  |  |  |  |  |
|  |  | X >  O > |  |  |  |  |  |