

## Testing Plan

Program Display	User Input	Expected Result	Observations
"1. Start Langston's Ant simulation 2. Quit Enter your choice: "	1	"You entered 1. Game started."	
"1. Start Langston's Ant simulation 2. Quit Enter your choice: "	2	"You entered 2. Quitting game."	
"1. Start Langston's Ant simulation 2. Quit Enter your choice: "	0	"Please enter a 1 or a 2."	Program should continue to ask for input until it receives a valid response from the user.
"1. Start Langston's Ant simulation 2. Quit Enter your choice: "	Any negative integer	"Please enter a 1 or a 2."	
"1. Start Langston's Ant simulation 2. Quit Enter your choice: "	Any character that isn't a positive integer	"Please enter a 1 or a 2."	
"Please select your board size. Here are your options: 1: Create my own board. 2. Create a board for me."	1	"You've chosen to create your own board."	
"Please select your board size. Here are your options: 1: Create my own board. 2. Create a board for me."	2	"You entered 2. Creating a 10x10 board for you."	
"Please select your board size. Here are your options: 1: Create my own board. 2. Create a board for me."	Any negative integer; any character that isn't a positive integer	"Please enter a 1 or 2."	

"You've chosen to create your own board. Please enter the number of rows you want for the starting board size: "	Any positive integer		
"You've chosen to create your own board. Please enter the number of rows you want for the starting board size: "	0	"Please enter an integer greater than 0."	
"You've chosen to create your own board. Please enter the number of rows you want for the starting board size: "	Any negative integer	"Please enter an integer greater than 0."	
"You've chosen to create your own board. Please enter the number of rows you want for the starting board size: "	Any positive integer	"Please enter the number of columns you want for the starting board size."	
"Please enter the number of columns you want for the starting board size."	0	"The number of columns must be an integer greater than 0! Try again!"	
"Please enter the number of columns you want for the starting board size."	Any negative integer	"The number of columns must be an integer greater than 0! Try again!"	
"Please enter the number of columns you want for the starting board size."	Any positive integer	"Please enter the number of steps that you want the ant to take, as long as the number is greater than zero:"	
"Please enter the number of steps that you want the ant to take, as long as the number is greater than zero:"	0	"The number of steps must be an integer greater than 0! Try again!"	
"Please enter the number of steps that you want the ant to	Any character that isn't a positive integer	"The number of steps must be an integer	

take, as long as the number is greater than zero.”		greater than 0! Try again!”	
<p>“Now that you’ve chosen your board size and decided step count, where would you like your ant to start?</p> <p>1: I will choose my starting location. 2. Choose a starting location for me.”</p>	1	“Enter the row number (starting at row 1) in which you would like the ant to start at:”	
<p>“Now that you’ve chosen your board size and decided step count, where would you like your ant to start?</p> <p>1: I will choose my starting location. 2. Choose a starting location for me.”</p>	2	Begin simulation	
<p>“Now that you’ve chosen your board size and decided step count, where would you like your ant to start?</p> <p>1: I will choose my starting location. 2. Choose a starting location for me.”</p>	Any letter	“Please enter an integer, either 1 or 2.”	
<p>“Now that you’ve chosen your board size and decided step count, where would you like your ant to start?</p> <p>1: I will choose my starting location. 2. Choose a starting location for me.”</p>	Any integer not a 1 or a 2	“Please enter a 1 or a 2.”	
<p>“Enter the row number (starting at row 1) in which you would like the ant to start at:”</p>	0	“Enter the row number (starting at row 1) in which you would like the ant to start at:”	

"Enter the row number (starting at row 1) in which you would like the ant to start at:"	Any character that isn't a positive integer.	"Enter the row number (starting at row 1) in which you would like the ant to start at:"	
"Enter the row number (starting at row 1) in which you would like the ant to start at:"	Any positive integer within the specified number of rows.	Begin simulation	
"Enter the row number (starting at row 1) in which you would like the ant to start at:"	Any positive integer outside the specified number of rows.	"Enter the row number (starting at row 1) in which you would like the ant to start at:"	
"Enter the column number (starting at column 1) in which you would like the ant to start at:"	0	"Enter the column number (starting at column 1) in which you would like the ant to start at:"	
"Enter the column number (starting at column 1) in which you would like the ant to start at:"	Any character that isn't a positive integer.	"Enter the column number (starting at column 1) in which you would like the ant to start at:"	
"Enter the column number (starting at column 1) in which you would like the ant to start at:"	Any positive integer within the specified number of columns.	Begin simulation	
"Enter the column number (starting at column 1) in which you would like the ant to start at:"	Any positive integer outside the specified number of columns.	"Enter the column number (starting at column 1) in which you would like the ant to start at:"	
"Would you like to run the simulation again? (Y/N)"	Y or y	Display main menu	
"Would you like to run the simulation again? (Y/N)"	N or n	Exit program	