

## GENERATING RANDOM NUMBERS: PROGRAMMING EXERCISES

1. Create a **Lottery** program that gives the user the option of generating either a 3-number, 4-number or 5-number random lottery ticket. For example, when the user selects 4-Number Lottery and then clicks the **GENERATE** button, four random numbers between 1 and 49 (inclusive) need to be generated and outputted to the user. Your program output should look something like this:



Save the program as **Lottery** in your UNIT 3 folder.

2. Create a **Guessing Game** program that randomly generates a number between 1 and 50 when the game starts. Users will need to enter a guess in the text box and press the **OK** button. If the user's guess is less than 1, the following error message should be displayed:



If the user enters a guess greater than 50, the following error message should be displayed:



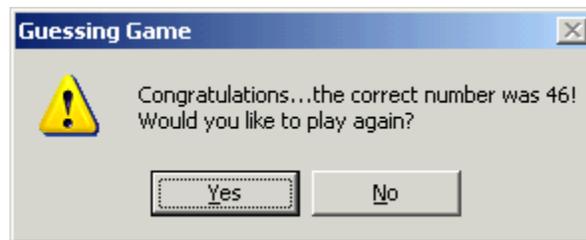
If the user enters a guess that is less than the secret number, the message “Your guess is too low!” should be outputted in the label named **lblMessage**, the focus should be reset to the text box and the text within the text box should be selected.



If the user enters a guess that is greater than the secret number, the message “Your guess is too high!” should be outputted in the label named **lblMessage**, the focus should be reset to the text box and the text within the text box should be selected.



If the user guesses the correct number, the following message should be displayed:



If the user chooses to play again, a new secret number needs to be randomly generated and everything should be cleared (i.e. text in the label and the text box).

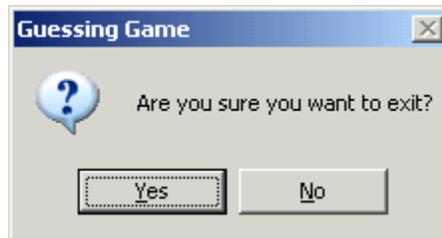
If the user chooses not to play again, the following message should be displayed before the program terminates.



Be sure to also include a **try-catch** statement within the `txtGuess_Validating` procedure that checks whether the user enters an integer in the text box. If the user does not enter an integer, the following message should be outputted to the user:



Finally, when the user clicks the **EXIT** button, the following message should appear:



If the user chooses YES, the program must terminate. If the user chooses NO, the user should be brought back to the main screen.

Save the program as **Guessing Game** in your UNIT 3 folder.