CIT 590 Homework 2 - Pig

Purpose of this assignment:
- Get acquainted with Python functions

"Pig" is a very simple game. Two players take turns; on each turn, a player rolls a six-sided die ("die" is the singular of "dice") as many times as she wishes, or until she rolls a 6. Each number she rolls, except a 6, is added to her score this turn; but if she rolls a 6, her score for this turn is zero, and her turn ends. At the end of each turn, the score for that turn is added to the player's total score. The first player to reach or exceed 50 wins.

For example:
- Alice rolls 3, 5, 3, 1, and stops. Her score is now 12.
- Bob rolls 5, 4, 1, 1, 2, and stops. His score is now 13.
- Alice rolls 5, 3, 3, 5, 4, and stops. Her score is now 32 (12 + 20).
- Bob rolls 4, 6. He has to stop, and his score is still 13 (13 + 0).
- Etc.

As defined above, the first player has an advantage. To make the game more fair, we will say that if the *first* player reaches or exceeds 50, the second player gets one additional turn. (If the second player is the first to reach 50, the first player does *not* get an additional turn.)

Your assignment is to implement the game of Pig. You will play against the computer. The computer always goes first, so you get one more turn if the computer is the first to reach 50.

If both players are tied with 50 or more, each gets another turn until the tie is broken.

Define and use at least the following functions:
- **def main():**
    - This is where your program will start execution.

- **def instructions():**
    - Tell the user the rules of the game. What words you use is up to you.

- **def human_move(*computer_score, human_score*):**
    - Tells the user both her current score and the computer's score, and how far behind (or ahead) she is. Then repeatedly asks whether the user wants to roll again. This continues until either:
        - The user decides not to roll again. The function should return the total of the rolls made during this move.
        - The user rolls a 6. The function should return 0.

- **`def computer_move(`**_`computer_score, human_score`_**`):`**
    - The computer rolls some number of times, displays the result of each roll, and the function returns the result (either 0 or the total of the rolls). The function may use its parameters in order to play more intelligently (for example, it may wish to gamble more aggressively if it is behind).

- **`def is_game_over(`**_`computer_score, human_score`_**`):`**
    - Returns **True** if either player has 50 or more, and the players are not tied, otherwise it returns **False**. (**Hint:** call this only after the human's move.)

- **`def roll():`**
    - Returns a random number in the range 1 to 6, inclusive. To do this, find the **random** module on https://docs.python.org/3/library/index.html and follow the link to find the **randint** method.

- **`def ask_yes_or_no(`**_`prompt`_**`):`**
    - Prints the prompt as a question to the user, for example, **`"Roll again? "`**. If the user responds with a string whose first character is **`'y'`** or **`'Y'`**, the function returns **True**. If the user responds with a string whose first character is **`'n'`** or **`'N'`**, the function returns **False**. Any other response will cause the question to be repeated until the user provides an acceptable response.

- **`def show_results(`**_`computer_score, human_score`_**`):`**
    - Tells whether the human won or lost, and by how much. (Call this when the game has ended.)

Due Date + Submission.
This assignment will be due Tuesday, September 19, by 11:59 p.m. Submit the file pig.py through Canvas.