三個題目請使用函式呼叫方式撰寫

1. (數字總和) 請撰寫一個函式，輸入一個整數，傳回其所有位數的數字總和。例如:

   給定一個數字 7361，函式傳為 17。(提示: 使用%與/, 30%)

2. (猜數字) 請撰寫一個 C 程式來進行猜數字的遊戲。說明如下:你的程式先從 1 到

   1000 隨機選取一個整個數字，然後印出 (提示: 使用 srand()與 rand(), 40%,)

   > I have a number between 1 and 1000.
   > Can you guess my number?
   > Please type your first guess.

   猜的人便輸入第一次猜的數字，然後你的程式應對此數字做出下列三種反應中的一

   種：

   > 1. Excellent! You guessed the number!
   >   Would you like to play again (y or n)?
   > 2. Too low. Try again.
   > 3. Too high. Try again.

3. (投擲硬幣) 撰寫一個程式來模擬投擲硬幣的動作。此程式應對每一次投擲的結果

   印出 Heads(正面)或 Tails(反面)。程式模擬投擲硬幣 100 次，並計算每一面出現的次

   數，最後將結果印出來。你的程中應呼叫一個稱為 flip 的函式，沒有任何引數，當

   它回傳 0 時代表反面，傳回 1 則代表正面(請注意: 如果您的程式真實模擬硬幣投

   擲，則硬幣每一面出現的次數應該接近於投擲次數的一半，即正面反面各接近 50

   次, 30%)

1. *(Sum of Digits)* Write a function that takes an integer and returns the sum of its digits. For example, given the number 7631, the function should return 17. (hint: using % and /, 30%)

2. *(Guess the Number)* Write a C program that plays the game of "guess the number" as follows: Your program chooses the number to be guessed by selecting an integer at random in the range 1 to 1000. The program then types:(40%, hint: using srand() and rand())

    I have a number between 1 and 1000.
    Can you guess my number?
    Please type your first guess.

    The Player then types a first guess. The program responds with one of the following:
    1. Excellent! You guessed the number!
       Would you like to play again (y or n)?
    2. Too low. Try again.
    3. Too high. Try again.

3. *(Coin Tossing)* Write a program that simulates coin tossing. For each toss of the coin the program should print Heads or Tails. Let the program toss the coin 100 times, and count the number of times each side of the coin appears. Print the results. The program should call a separate function flip that takes no arguments and return 0 for tails and 1 for heads. [Note: if the program realistically simulates the coin tossing, then each side of the coin should appear approximately half the time for a total of approximately 50 heads and 50 tails.](hint: using srand() and rand(), 30%)