

- 1) eCreate an algorithm for the following game
- 2) Create the pseudo code for following game
- 3) Write the code for the following game in Java.

Create a computer game for 2 players. Each player a pair of dice. The player with the higher roll gets the difference of the two rolls added to their score. The games ends when the first player reaches the score of 100 or more. If both players reach 100 or more in the final roll the player with the higher score wins. If their score is tied the players will continue to roll until one of the players score is higher than the others at which point that player wins. Display which player won and the final score of both players.

## YOUR ALGORITHM

1. Keep track of Player 1's score.
2. Keep track of Player 2's score.
3. Make a loop where the condition is that both player 1 and player 2's score is under 100.
4. Randomly assign a number from 1 to 6 to each player's roll. Check whichever player's score is greater, and add that difference to the greater player's score.
5. When one of the player's scores is greater than 100, end the loop and print the winner.

## YOUR PSEUDOCODE

- player1Score = 0
- player2Score = 0
- while (player1Score < 100) && (player2Score < 100):
  - player1Roll1 = math.random(1, 6)
  - player1Roll2 = math.random(1, 6)
  - player1Roll = player1Roll1 + player1Roll2
  - player2Roll1 = math.random(1, 6)
  - player2Roll2 = math.random(1, 6)
  - player2Roll = player2Roll1 + player2Roll2
  - If player1Roll > player2Roll:
    - player1Score = player1Score + (player1Roll - player2Roll)
  - Elseif player2Roll > player1Roll:
    - player2Score = player2Score + (player2Roll - player1Roll)
- If player1Score > player2Score:

- Print that player 1 won
- Elseif `player2Score > player1Score`
  - Print that player 2 won