Bonifacio Mirand
April 10, 2021
CSE 13S

Assignment 1: Implement a simple game called left, right, and center.

returns the position of the player to the left
pos: The position of the current player
players: The number of players in the game

```
static inline uint8_t left(uint8_t pos, uint8_t players) {
   return ((pos + players -1) % players);
}
```

returns the position of the player to the right
pos: The position of the current player
players: The number of players in the game

```
static inline uint8_t right(uint8_t pos, uint8_t players) {
   return ((pos + 1) % players);
}
```

Number of the die faces

```
typedef enum faciem { PASS, LEFT, RIGHT, CENTER } faces;
faces die[] = { LEFT, RIGHT, CENTER, PASS, PASS };
```

The main function runs the program and starts the user interaction. This initializes an array and corresponding vectors to the appropriate number of players while keeping track of the amount of currency each player has in the array. If the player has no money the program will move to the next player on the right. If there is only one player with currency then the current player is set to the winner and the game ends. If there is more than one player with currency the game will roll the dice a maximum of 3 times or the number of currency the player has until the win condition is satisfied. The roll is randomized and based on the six values it has it wil skip the current player or subtract one currency from the current player and add one currency to the left or right player.

```
Function main() {
  Initialize array money[14];
  Initialize seed;
  Initialize players;
  Initialize winners;
  Set currency pot = 0;
  Set position = 0;
```

```
  Set seed to user input;
  Set players to user input from 1 to 14;

  for i from 0 to players {
    Set money[i] to 3;
  }

  while winner == False {
    if current players has no currency {
      Move to next player;
    }
    if only one player has currency {
      Set winner to last player;
      winner == True;
    }
    for  3 dice rolls or less {
      if current player's roll exceeds their currency {
        break out of loop;
      }
      roll random using srandom ;
      if roll == LEFT {
        +1 player to the left
        -1 from current player;
      }
      else if roll == RIGHT {
        +1 player to the right;
        -1 from current player;
      }
      else if roll == CENTER {
        +1 currency pot;
        -1 from current player;
      }
      else {
        skip current player;
      }
    }
    move to next player;
  }
  declare winner;
}
```