

K players, K between 1 and 14 inclusive.

Each player starts with 3\$.

Three dice each with:

- 3/6 outcome of DOT

- 1/6 outcome of L

- 1/6 outcome of R

- 1/6 outcome of C

Player 1 rolls:

- if 3\$ or more roll all dice

- else roll number of dice equal to number of dollars

- if L, give 1\$ to player on left

- if R, give 1\$ to player on right

- if C, put 1\$ into center

- if dot, do nothing

Move onto player to the right: (**Players are numbered with a weird MOD convention**)

Same sequence

Move on again to the right until only one person has all the \$\$.

PROGRAM ARGUMENTS:

- Random seed, so that the random # is always the same on all computers it is run on

- Number of players

Due to this random seed, same inputs should always yield same outputs.

INFO TO STORE:

- Which player is playing currently, currentPlayer (integer value)

- Amount of money in center (integer value)

- Amount of money each player has (array corresponding to each player)

- Faces of the die (array with all values in order specified!)

GAME PSEUDOCODE:

main()

RandomSeed = ReadInput

NumPlayers = ReadInput

CurrentPlayer = 0 ** Player Numbering

while (numPlayers > 1):

- //Run the game as long as there are multiple players

- numRolls = 0 //every loop, reset this variable

```
if money(currentPlayer)>0:
    if money(currentPlayer) == 1:
        numRolls = 1
    if money(currentPlayer) == 2:
        numRolls = 2
    if money(currentPlayer) >= 3:
        numRolls = 3
```

play() //call a helper method play, this has no inputs, it covers everything that happens in the turn, using the variable numRolls, to modulate the length of the player's turn.

```
else: //move onto the next player
currentPlayer ++ //Numbering is adhoc, figure it out with the mod crap
```

//using numRolls, excecutes the ENTIRE TURN for a player, already knowing how many they are allowed from the callee.

```
play()
for (numRolls):
    roll = random (using random seed) //Random and Random see needed here

    if roll == left:
        transfer money to player to left in array
    if roll == right:
        transfer money to player right in array
    if roll == center:
        transfer money to center from array,
    else: pass
```

That's the program, so, big things are to figure out random, figure out player numbers, and figure out mapping the player array and the player net worth array in a synchronized manner.

****Player Numbering**

$(player - 1) \bmod NP$
 $(player + 1) \bmod NP$

players	0	1	2	3
left	3	0	1	2
right	1	2	3	0

NumPlayers = 4