

**Program 2 - Altars**  
**Comp 170**  
**50 Points**  
**DUE: Tuesday, February 19**  
**Submit Via EASE**

**Rules of Altars:**

**Players:** 1 vs. Computer

**Object:** Reach 39 points without going over (or busting)

**Scoring:** each pip is worth 1 point

**Game play:**

Round 1: Everyone rolls their dice, adds their points and calls out their total.

Round 2: Same as the first round, everyone rolls again, adding their points to their total and calling out their total.

Round 3: Same as previous.

Round 4+: After the third round if no one has 27 or more points the round is played like the first round. Once someone has reached 27 or more all players begin to roll one at a time. Rounds continue until everyone has either busted, hit 39 or has stood.

You can stand (stop rolling) whenever you want. Going over 39 is an automatic lose.

Hitting 39 is an automatic win (there can be more than one winner). If no one reaches 39 the highest score with out exceeding 39 wins.

**Additional Requirements:**

- Both the user and the computer roll at the same time.
- The user should be able to see his and the computers total points after each move.
- Use the command 'R' or 'r' to roll
- Use the command 'S' or 's' to stand
- All other commands should be ignored and the user should be prompted again.
- Each time a game is finished report to the user how may games the computer has won and how many games the user has won.
- After the previous report ask the user if they want to play again. Accept there answer 'Y' or 'y' for yes, and 'N' or 'n' for no. If the user replies with any other value continue asking them until an expectable answer is entered.
- Use the logic for the computer player that has been provided in the attached flow chart. Feel free to add any additional logic to make the computer player smarter.

Your score is 0  
The computers score is 0  
  
(R)ole or (S)tay? r  
  
Your score is 11  
The computers score is 7  
  
(R)ole or (S)tay? R  
  
Your score is 15  
The computers score is 14  
  
(R)ole or (S)tay? R  
  
Your score is 22  
The computers score is 23  
  
(R)ole or (S)tay? r  
  
Your score is 29  
The computers score is 29  
  
(R)ole or (S)tay? r  
  
Your score is 34  
The computers score is 33  
  
(R)ole or (S)tay? r  
  
Your score is 35  
The computers score is 34  
  
(R)ole or (S)tay? r  
You Busted  
  
Computer is standing  
  
Your score is 40  
The computers score is 34  
  
Computer Wins  
  
Computer wins 1  
Your wins 0  
  
Do you want to play again?  
Y

Your score is 0  
The computers score is 0  
  
(R)ole or (S)tay? r  
  
Your score is 7  
The computers score is 6  
  
(R)ole or (S)tay? r  
  
Your score is 13  
The computers score is 11  
  
(R)ole or (S)tay? r  
  
Your score is 16  
The computers score is 16  
  
(R)ole or (S)tay? r  
  
Your score is 22  
The computers score is 19  
  
(R)ole or (S)tay? r  
  
Your score is 31  
The computers score is 21  
  
(R)ole or (S)tay? r  
  
Your score is 33  
The computers score is 23  
  
(R)ole or (S)tay? r  
  
Your score is 39  
The computers score is 24  
  
(R)ole or (S)tay? s  
  
Your score is 39  
The computers score is 26  
  
Your score is 39  
The computers score is 32  
  
Your score is 39  
The computers score is 35  
  
Your score is 39  
The computers score is 37  
  
Computer Busted  
  
Your score is 39  
The computers score is 42  
  
You Win!!  
  
Computer wins 1  
Your wins 1  
  
Do you want to play again?  
Y

Your score is 0  
The computers score is 0  
  
(R)ole or (S)tay? r  
  
Your score is 7  
The computers score is 9  
  
(R)ole or (S)tay? r  
  
Your score is 19  
The computers score is 17  
  
(R)ole or (S)tay? r  
  
Your score is 25  
The computers score is 24  
  
(R)ole or (S)tay? r  
  
Your score is 32  
The computers score is 27  
  
(R)ole or (S)tay? r  
  
Your score is 38  
The computers score is 33  
  
(R)ole or (S)tay? s  
  
Your score is 38  
The computers score is 39  
  
Computer is standing  
  
Your score is 38  
The computers score is 39  
  
Computer Wins  
  
Computer wins 2  
Your wins 1  
  
Do you want to play again?N

