

2011 SDSU Program Design Competition

Make 15 Game

In the Make 15 game there are 9 numbers, ranging from 1 to 9. Two players take turns to pick up a number, when three of a player's picked numbers can add up to 15, that player wins. The game is a draw if all the numbers have been picked and no player has three numbers that add up to 15.

An example of the game-play is as follows:

1	2	3	4	5	6	7	8	9
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First turn:

Player 1 chooses 1

Player 2 chooses 5

1	2	3	4	5	6	7	8	9
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Second turn:

Player 1 chooses

8

Player 2 chooses 7

1	2	3	4	5	6	7	8	9
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Third turn: Player

1 chooses 6

1	2	3	4	5	6	7	8	9
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Player 1 wins, since $1 + 6 + 8 = 15$

Note: The players can pick any available number but in order to win, only 3 picks can add up to 15.

Make a computer version of this game. It should:

- Allow two players to compete.
- Start with the first player and alternate turns until one player wins.
- On a turn, display the current status of the game with each player's picks.
- For enhanced game play, add a timer on each turn and a point scoring system, although this is **not a requirement**.

You can design this game for either human-to-human or human-to-computer, or both. Also you can develop this game using any software tools available to you. You may create a web based application, a C/C++ program, a Visual Basic/C++/C# program, Java, or some other programming environment. Your program MUST run on a Windows XP or VISTA computer using standard installation. Browser-based solutions MUST work on Internet Explorer or Firefox Web browsers.

Your work will be judged on,

1. Correctness of the solution
2. Uniqueness of the design
3. Completeness of solution
4. User-interface design

Team members are encouraged to participate during the presentation. All parts of the presentation and source code must be burned to a clearly labeled CD and submitted to the program design competition committee on the day of the competition.

If you have any questions regarding the problem, please do not hesitate to ask us (onyeka.ezenwoye@sdstate.edu or sung.shin@sdstate.edu). Good luck and have fun!