

Exercise 6: Smorgasbord Game

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Puzzle Solving 101 • Lesson 6: Logic Problems

GCYXZ6 • Originally published 2007-08-16

ps101.puzzlehead.org/gcyxz6

The solution to this puzzle is a set of geospatial coordinates (longitude and latitude) in the form:

N DD° MM.mmm' W DD° MM.mmm'

Where ".mmm" is minutes (in thousandths). These coordinates are the solution to the mystery cache Puzzle Solving 101 - Lesson 6: Logic Problems (GCYXZ6). (This cache has been archived—the puzzle-solving lesson on the cache page is still visible, but the cache can no longer be found and logged.)

This solution can still be used to complete, discover, and log the cache Puzzle Solving 101 (GCYXN0). Concatenate the five digits in the north minutes followed by the five digits of the west minutes (ignoring spaces and decimal points). Use that ten-digit sequence as the password for the web page ps101.puzzlehead.org/gcyxz6/clue, which will give you one of the nine clues you will need to complete The Final Exam.

Five friends have just come out of a board game shop, and each has purchased his or her favorite board game. The five friends are: Alice, Bob, Carl, Daniel, and Emily. The five games they purchased are: Cranium, GoLo, Mille Bornes, Settlers of Catan, and Waterworks. Each game costs a different amount, and each game has been rated differently on a scale of 0 (worst) through 10 (best) by the readers of BoardGameGeek.com.

Each of these game sets may include dice, cards, or both (plus a board, tokens, card trays, roads, settlements, clay, golden wrenches, and other trinkets that don't matter for the sake of this puzzle). If you don't know which game is played with what items, the links above should help you figure that out.

Note: A Cranium set includes only a single die. Having to say "a die or dice" over and over again is going to be as tough for me to write as it is for you to read, so for simplicity's sake just pretend that Cranium is played with more than one die.

Using the following statements, determine what each friend's favorite game is, how much it costs, and what its BoardGameGeek.com rating is.

- Bob's favorite game costs less than Waterworks, which costs less than the game with the 7.6 rating.
- Mille Bornes is rated higher than the game that costs \$19.95, which is rated higher than Carl's favorite game.
- The friend who paid \$15.96 for his game got a real deal since his game has an 8.1 rating.
- Daniel's favorite game isn't the top rated, but it also didn't cost the most.
- Neither the most expensive game nor the worst rated game are played with dice.
- Carl's favorite game costs more than Settlers of Catan, which costs more than the game with the 7.5 rating.
- The game that costs \$19.95 (which is not Emily's favorite) is not rated 7.5.
- The game that costs \$17.47 uses dice but not cards, unlike the game with the 7.6 rating which uses cards but not dice.
- The person whose favorite game is rated 7.5 is male.

	Alice	Bob	Carl	Daniel	Emily	Price: \$15.96	Price: \$17.47	Price: \$19.95	Price: \$20.40	Price: \$21.21	Rating: 6.9	Rating: 7.3	Rating: 7.5	Rating: 7.6	Rating: 8.1
Cranium															
GoLo															
Mille Bornes															
Settlers of Catan															
Waterworks															
Rating: 6.9															
Rating: 7.3															
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Once you've solved this puzzle, you're not quite through. For each friend's game, multiply the game's price by its rating to get its "value" (for lack of a better term). Plug the appropriate values into the following equations to find the final location of this cache.

North Minutes = Alice's game's value - Cranium's value

West Minutes = Emily's game's value - Settlers of Catan's value

Friend	Favorite Game	Game Price	BGG Rating	Value (Price × Rating)
Alice				
Bob				
Carl				
Daniel				
Emily				

HINT (in ROT13): "Uvf" qbrf abg zrna "uvf be uref"