

Puzzles!!

A good way to exercise your brain and practice problem solving is through a variety of puzzles. You may be familiar with some puzzles, like Sudoku. Here are some others you can try.

Zebra puzzle

There are 5 houses each with a different color. Their owners, each with a unique heritage, drinks a certain type of beverage, drives a certain kind of car, and keep a certain variety of pet. *None of the owners have the same pet, drive the same car, or drink the same beverage.*

- The Brit lives in the red house.
- The Swede keeps dogs as pets.
- The Dane drinks tea.
- The green house is just to the left of the white house.
- The green house's owner drinks coffee.
- The person who drives a Porsche raises birds.
- The owner of the yellow house drives a Ford.
- The man living in the center house drinks milk.
- The Norwegian lives in the first house.
- The man who drives a Dodge lives next to the one who keeps cats.
- The man who keeps a horse lives next to the man who drives a Ford.
- The owner who drives a Volvo also drinks beer.
- The German drives a BMW.
- The Norwegian lives next to the blue house.
- The man who drives a Dodge has a neighbor who drinks water.



Who owns the zebra?

Four-sided Dice

I have three special four-sided dice.

They have one letter on each side.

When I roll them together I get three random letters which I try to rearrange into a word. In my eight goes so far I have made the words:

CAT, SON, POD, RIG, PEG, TAP, DIN, APE

What are the letters on each dice?



Muffins

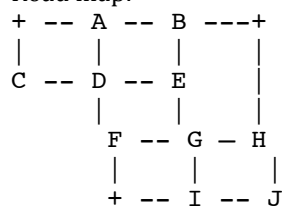
Daniel made a dozen blueberry muffins on Friday night -- and by the time he was ready for brunch on Saturday, there were only two left. The other ten had been snitched by his roommates, all of whom had gotten up early because they had to work on Saturday. The four housemates include two men named Bill and Mark, and two women named Calla and Lynn; last names are Ellis, Ingham, Oakley, and Summers, and their differing professions are dogcatcher, flautist, secretary, and zookeeper. **Can you discover each one's full name, profession, and number of muffins snitched?**

1. Each housemate snitched a different number of muffins from one to four.
 2. Bill and Ellis snitched a total of six muffins.
 3. The secretary (who is a woman) snitched more than the dogcatcher.
 4. Mark snitched two more than Summers did.
 5. The flautist snitched twice as many as Ms. Oakley did.
 6. Calla's last name isn't Ingham.
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Road Signs

Compass County contains 10 small towns, as shown in the map below. The towns (named Kuhery, Layton, Mungle, Nicket, Pravil, Quabba, Ridder, Skoque, Tudora, and Vydorf) are linked by roads which are mostly north-south and east-west, complicated somewhat by three bends as shown ("the + signs"). Ten new directional signs have been painted, one to be placed in each town. Each sign tells how to get to one or two other towns, in each case by traveling along a single road -- provided that if you reach one of the road bends, you follow it and then continue in the new direction. For example, a sign in town C might direct you east to town D or E, or it might direct you north to town A, B, H, or J. The woman in charge of erecting the signs has them all stacked in the back of her pickup truck and is ready to go, but unfortunately she was given a map that doesn't show which sign belongs to each town, or even which town is which. **Can you help her out by matching each lettered town on the map with its name and sign?**

Road map:



| is a north-south road
-- is an east-west road
+ is a bend in the road, not a town

N
W E
S

Signs:

1. NORTH TO KUHERY
 2. NORTH TO LAYTON
 3. NORTH TO NICKET
 4. NORTH TO QUABBA
 5. EAST TO LAYTON
 6. NORTH TO MUNGLE
 7. NORTH TO SKOQUE
 8. EAST TO VYDORF
 9. SOUTH TO RIDDER
 10. WEST TO PRAVIL
- WEST TO TUDORA
EAST TO VYDORF
SOUTH TO SKOQUE
WEST TO KUHERY
EAST TO NICKET

Train Stations (from the 2013 NACLO)

Here is a map of Stockholm metro stations. **In the list following put the appropriate station number next to its English translation.**¹

- | | | |
|---------------------------|----------------------------|------------------------|
| ___ Abraham's Mountain | ___ Forest Church Garden | ___ Mountain Hammer |
| ___ King's Garden | ___ Spring Village Farm | ___ Charles Square |
| ___ Alder Bay | ___ Gullmar's Square | ___ Odin Square |
| ___ Lake Mälaren Heights | ___ St. Eric's Square | ___ Dark Mountain |
| ___ Alder Village | ___ Hall Grove | ___ Pasture Manor |
| ___ Manor | ___ Sture Village | ___ Fathertown |
| ___ Axel's Mountain | ___ Hammer Village Heights | ___ Rink Village |
| ___ Mary Market | ___ Telephone Square | ___ Fathertown Beach |
| ___ Band Pasture | ___ Haymarket | ___ Hazel Village Farm |
| ___ Meadow Village Square | ___ Tender Village Center | ___ Town Pasture |
| ___ Birch Pasture | ___ Hazel Village Beach | ___ House Village |
| ___ Mount Christine | ___ Thorild's Square | ___ Western Cottage |
| ___ Channel Village | ___ John's Grove | ___ Iceland Market |
| ___ Mountain Centre | ___ Spring Mountain | ___ Westwood |



Tunnelbana
Metro
U-Bahn



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¹ Actually these “translations” were adapted from a humorous map published by the English-language Swedish news magazine *The Local*.

Do you like puzzles like these? Here are some links to more.

- these might look simple but they can be tricky!
<http://www.mathsisfun.com/puzzles/logic-puzzles-index.html>
- http://brownbuffalo.sourceforge.net/puzzle_index.html
- <http://www.naclo.cs.cmu.edu/> (the web page for the North American Computation Linguistics Olympiad) – click on “Past Olympiads” and you can access problems from previous years’ competitions
- <http://brainden.com/logic-puzzles.htm>

Still want more? Try googling “logic puzzles” for many, many more!