

MAT 2440 Assignment #1

This assignment is due on XX/XX/20XX at 10 am - at the beginning of our class period. You may submit it electronically as a pdf document or as a hard copy. Assignments late by 1 day will be penalized by 25%, 2 days late 50%, 3 days late 75% and any later they will no longer be accepted.

Part of this assignment is group work. I will be assigning groups in class. Please be sure to exchange contact information with your group members. You will be solving and writing logic puzzles. **Each** member of your team must **write** a puzzle to be solved by another team member and **solve** a puzzle by a team member in order to receive full credit.

Logic Puzzle #1

There are three neighbors living in a row. Each house has a different color and a different animal and person living in/at the house. Each person has a different profession. **Determine the color of the house that the horse lives at** given these clues: The horse lives in the first house. The doctor is Jamal's neighbor. Jamal does not have a Ferret as a neighbor. Carlos does not live in the blue house and Jamal does not live in the green house. Ann is a lawyer and lives in the 3rd house. The professor has the horse as a neighbor. The mouse does not live in the red house. The lawyer does not live in the blue house.

Logic Puzzle #1

Three friends with different jobs and different pets live in consecutive houses on a block, their names are Sue, James and Maria (names not given in any specific order). Their houses are painted different colors. **Determine who owns a zebra** given these clues: Sue lives in the blue house. James does not live next to Sue. The owner of the first house is a professor. The dentist owns a dog. The yellow house is to the right of the red house. The owner of the yellow house owns a dog. The blue house is the last house. The parrot owning musician lives next to the dentist. The zebra's owner is a professor.

1. For **each** logic puzzle:
 - (a) Decide on symbols to represent your information, for example "S" can represent "Sue" and "R" can represent "red house." [5 points per puzzle]
 - (b) Make a table where the rows represent the friends and the columns represent the color of their houses, their pets and their jobs. Use logical reasoning to determine the correct entries in the table. [10 points per puzzle]
 - (c) For every entry you must write at least one sentence justifying the choice. If the information was given in the assignment prompt, say so. [5 points per puzzle]
2. Create your own logic puzzle for one member of your team to solve. Be sure to be clear and thorough in your puzzle description and solve your puzzle before sharing it! Your puzzle **MUST** contain the same categories as Logic Puzzles # 1 and #2: three neighbors, three professions, house order (1st, 2nd, 3rd), three house colors and three pets. [30 points]

3. Choose a member of your team and solve their puzzle. Write up a **feedback report** to give to that team member. This report must be included with this assignment in order to receive credit for this part. The feedback report should contain the following information:
- (a) The solution to your team member's puzzle. (If the puzzle was not solvable, why not?) [10 points]
 - (b) What suggestions would you make for improvement to the puzzle? [10 points]
 - (c) Was the puzzle level appropriate? For example, the puzzle was too easy or too hard. [10 points]

Please be sure this writing is your own - do NOT borrow from a friend OR copy directly from the internet. I want to hear your own voice, not read a copy and paste of some other source!!! Paraphrasing is okay of course and make sure you cite your sources properly. It may be helpful to look at the writing resources for students on City Tech's Writing Across the Curriculum website at:

<https://openlab.citytech.cuny.edu/writingacrossthecurriculum/student-resources/> and the documents posted on our OpenLab site. Please contact me for additional help and keep in mind the college's policy on academic integrity found here:

http://www.citytech.cuny.edu/academics/docs/academic_integrity_policy.pdf