

CS6102 – Computational Thinking Lab

Week 4(Dec 24, 2021)

Logical Reasoning

Solve the Following

Each question has an underlined word followed by four answer choices. You will choose the word that is a necessary part of the underlined word. A good way to approach this type of question is to say the following sentence: “A _____ could not exist without _____.” Put the underlined word in the first blank. Try each of the answer choices in the second blank to see which choice is most logical.

1. Book

- a. fiction
- b. pages
- c. pictures
- d. learning

2. Language

- a. tongue
- b. slang
- c. writing
- d. words

3. Knowledge

- a. school
- b. teacher
- c. textbook
- d. learning

4. Culture

- a. civility
- b. education
- c. agriculture
- d. customs

Analogies test your ability to see relationships between words, objects, or concepts. There are many different types of analogy relationships: use or function, part-to-whole, classification, proportion or degree, cause and effect, similarity or difference. In each of these verbal analogies, you will be given a set of two related words, followed by a third word and four answer choices. Of the four choices, you must identify the one that would best complete the second set so that it expresses the same relationship as the first set. A good way to figure out the relationship in a given question is to make up a sentence that describes the relationship between the first two words. Then, try to use the same sentence to find out which of the answer choices completes the same relationship with the third word.

Example : Cup is to coffee as bowl is to

- a. dish.
- b. soup.
- c. spoon.
- d. food.

5. Exercise is to gym as eating is to

- a. food.
- b. dieting.
- c. fitness.
- d. restaurant

6. Optimist is to cheerful as pessimist is to

- a. gloomy.
- b. mean.
- c. petty.
- d. helpful.

7. Embarrassed is to humiliated as frightened is to

- a. terrified.
- b. agitated.
- c. courageous.
- d. reckless.

8. Guide is to direct as reduce is to

- a. decrease.
- b. Maintain
- c. increase.
- d. preserve.

Match definitions to particular situations. For each question, you will be given a definition and four possible answer choices. Read each definition and all four choices carefully, and find the answer that provides the best example of the given definition. Answer each question solely on the basis of the definition given.

9. **Violating an Apartment Lease** occurs when a tenant does something prohibited by the legally binding document that he or she has signed with a landlord. Which situation below is the best example of Violating an Apartment Lease

- a. Tim has decided to move to another city, so he calls his landlord to tell him that he is not interested in renewing his lease when it expires next month.
- b. Valerie recently lost her job and, for the last three months, has neglected to pay her landlord the monthly rent they agreed upon in writing when she moved into her apartment eight months ago.
- c. Mark writes a letter to his landlord that lists numerous complaints about the apartment he has agreed to rent for two years.
- d. Leslie thinks that her landlord is neglecting the building in which she rents an apartment. She calls her attorney to ask for advice.

10. A **Guarantee** is a promise or assurance that attests to the quality of a product that is either (1) given in writing by the manufacturer or (2) given verbally by the person selling the product. Which situation below is the best example of a Guarantee?

- a. Melissa purchases a DVD player with the highest consumer ratings in its category.
- b. The salesperson advises Curt to be sure that he buys an air conditioner with a guarantee. c. The local auto body shop specializes in refurbishing and selling used cars.
- d. Lori buys a used digital camera from her coworker who says that she will refund Lori's money if the camera's performance is not of the highest quality.

Short Logic Problems

Each problem consists of three statements. Based on the first two statements, the third statement may be true, false, or uncertain. Logic problems may appear daunting at first. However, solving these problems can be done in the most straightforward way. Simply translate the abstract relationships in the questions into real-world relationships, so you can see the facts more clearly.

For example, if the problem is comparing the ages of three people, make a chart and list the names of the people and their possible ages according to the information given. Or, create a diagram using symbols to represent phrases like “older than” or “greater than.”

11. All the offices on the 9th floor have wall-to wall carpeting. No wall-to-wall carpeting is pink. None of the offices on the 9th floor has pink wall-to-wall carpeting.

If the first two statements are true, the third statement is

- a. true.
- b. false.
- c. uncertain.

12. All the trees in the park are flowering trees. Some of the trees in the park are dogwoods. All dogwoods are flowering trees.

If the first two statements are true, the third statement is

- a. true.
- b. false.
- c. uncertain.

13. A fruit basket contains more apples than lemons. There are more lemons in the basket than there are oranges. The basket contains more apples than oranges.

If the first two statements are true, the third statement is

- a. true.
- b. false.
- c. uncertain.

14. Taking the train across town is quicker than taking the bus. Taking the bus across town is slower than driving a car. Taking the train across town is quicker than driving a car.

If the first two statements are true, the third statement is

- a. true.
- b. false.
- c. uncertain.

15. Cloudy days tend to be more windy than sunny days. Foggy days tend to be less windy than cloudy days. Sunny days tend to be less windy than foggy days.

If the first two statements are true, the third statement is

- a. true.
- b. false.
- c. uncertain