

Answers can be found in the text and in lecture notes—refer to syllabus for textbook information/details.

Some of these questions are exercises from Chapters 7 and 8 of the text.

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1. What is an algorithm?

2. Write an algorithm for the following tasks.
 - a. Making a peanut butter and jelly sandwich
 - b. Getting up in the morning
 - c. Doing your homework
 - d. Driving home in the afternoon

3. List the phases of the computer problem-solving model

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For questions 4 – 11, mark the answers true or false.

4. A binary search cannot be applied to a tree.
5. A stack displays FIFO behavior.
6. A queue displays LIFO behavior.
7. A leaf tree is a node with no children.
8. A binary tree is a tree in which each node can have zero, one, or two children.
9. The root of a tree is the node that has no ancestors.
10. Binary search trees are ordered.
11. A binary search tree is always balanced.

12. Draw the binary search tree whose elements are inserted in the following order:

50 72 96 107 26 12 11 9 2 10 25 51
16 17 95