NAME: _____

CS21 Fall 2018, Written portion of Lab 8

Due in class Friday, November 16

For this worksheet, assume we are running searches that return the *index* of the word if it *is* in the list, and return -1 if the word is *not* in the list. We are given the following list:

`lst = ["bear", "bird", "bug", "cat", "cow", "dog", "fish, "lion"]`

1. How many steps does it take to search for the value `"cow"` in the list using *linear search*?

2. How many steps does it take to search for the value `"cow"` in the list using *binary search*?

3. Make a table to show the values for `low`, `high`, and `mid` for each comparison step in searching for the animal `"bear"` in the list using binary search. What is returned at the end of this algorithm?

4. Make a table to show the values for `low`, `high`, and `mid` for each comparison step in searching for the animal `"elephant"` in the list using binary search. What is returned at the end of this algorithm?