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?