

NAME: \_\_\_\_\_

PERIOD: \_\_\_\_\_

1. Given the following list:

```
L = ["blue", "green", "indigo", "mauve", "orange", "red", "violet",  
"yellow"]
```

(a) How many steps does it take to search for the value "orange" in the list using linear search? **Show your work.**

(b) How many steps does it take to search for the value "orange" in the list using binary search? **Show your work.**

(c) Show the values for `low`, `high`, and `mid` for each comparison step in searching for the color "violet" in the list using binary search.