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Asgn5 DESIGN.pdf

1. 7 rounds
2. n^2 worse case scenario
3. Nlogn
4. To improve the run time, I would try to find a way to reduce the number of loops used
5. The Quick Sort, while not really fast in terms of operations, is a sorting algorithm that is able to be implemented in many different programs.
   Source:
   https://www.khanacademy.org/computing/computer-science/algorithms/quick-sort/a/analysis-of-quicksort
6. The binary search decreases time needed as it is a much more accurate and fast searching method. When paired with a sorting method that requires searching, the two create a powerful team
7. Have variables that are strategically placed within the function so that they increment when an operation or comparison is performed.

Coding:

Already have pseudocode for the sorts

I will be using getopt, with booleans. These booleans are connected to an argument. After the getopt, use if statements to replace default values, if values were given, and run programs.

```
Int c = 0;
While (c = getopt() != -1)
switch(c)
        case'A':
                A = true;
        Case'b':
                b = true;
Etc…
```