Quicksort Mergesort Solutions

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1 Quicksort

1.1 Problem 1

It chooses the middle value of the array as its pivot.

1.2 Problem 2

An example of a worst choice for a pivot is choosing the lowest or highest value.

1.3 Problem 3

The best choice for a pivot is the median value.

1.3.1 Problem 4

It is considered a divide and conquer algorithm because it makes one big problem into two smaller problems.

1.4 Problem 5

Cool website!

2 Mergesort

2.1 Problem 1

When your pivot is terrible, Mergesort is better. This is likely to happen when your array is far from being sorted.

2.2 Problem 2

When you have a good pivot or limited memory, Quicksort is better. You are likely to have a good pivot when your set is almost sorted.

2.3 Problem 3

When you reach the point where you are making comparisons between two items, you have reached the base case. When you have sorted and you now have two arrays left to sort against each other, you have reached your final step.

2.4 Problem 4

It's too hard to do this online.