Merge sort

1.Divides the array in half
2.Sorts each of these halves
3.Merges them back together
- Each of these haves have the same sorting algorithm applied to it
- Eventually you are merging just 2 single element arrays

Quick sort

Array is split in two parts based on a pivot point (one with elements larger than the pivot, one with elements smaller than the pivot) and is recursively repeated

Divide-and-conquer, massively recursive sort

Radix sort

1. First look at the least sig fig and sort everybody based on this.
2. Sort based on 2nd most sig fig -> Whenever I have repetition in the 2nd digit -> the 2nd order already in the 1st one kicks in
3. Repeat for the most sig dig and maintain everybody else

Type of stable sort (order of duplicates is maintained)

Asymptotic analysis

BIG-OH	INFORMAL NAME
$O(1)$	constant
$O(\log n)$	logarithmic
$O(n)$	linear
$O(n \log n)$	$n \log n$
$O(n^2)$	quadratic
$O(n^3)$	cubic
$O(2^n)$	exponential