

In big O notation, what is the expected efficiency?

Bubble: $O(n^2)$

Merge: $O(n \log^* n)$

Count: $O(n)$

Why is counting sort impractical as a general sorting algorithm?

Because the array size cannot be expanded; you have to constrain values to a fixed range.

Sort Algorithm	Array Length	Array Accesses Pass 1	Array Accesses Pass 2	Array Accesses Pass 3	Average Array Accesses
Bubble	8	11	18	7	12
Bubble	32	285	246	258	263
Bubble	128	3513	3879	4096	3829
Merge	8	82	80	82	81
Merge	32	558	560	562	560
Merge	128	3248	3262	3268	3259
Counting	8	16	16	16	16
Counting	32	64	64	64	64
Counting	128	256	256	256	256