1.8 In order to demonstrate the difference in complexity we compare algorithms with different complexity that are executed on a 1 MIPS computer. Notice, the comparatively slow growth of the two first algorithms while the last grows very fast.

Can a high-speed computer, for example with 1 GMIPS be a solution?

Algorithm	$O(n)$	$O(n\ log_2(n))$	n^2	n^3
10	10 µs	33 µs	100 µs	1 ms
100	100 µs	664 µs	10 ms	1 s
1000	1 ms	9.97 ms	1 s	16.7 min
10000	10 ms	133 ms	100 s	278 h
100000	100 ms	19.93 s	2.8 h	31 710 years