Shell Sort

The idea of shellsort is that insertion sort is inefficient because elements really move only one position at a time. Even when we kind of know that they have a long way to go. The idea behind shell sort is that we'll move entries several positions at a time, and the way we're gonna do it is called h-sorting the array. An h-sorted array is h different, interleaved sorted sub-sequences.

The worst-case number of compares used by shell-sort with the 3x+1 increment is $O(N^{3/2})$

Useful in practice:

- fast unless array size is huge