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SHELLSORT( $A$ )
   $n \leftarrow \text{length}[A]$ 
   $h \leftarrow 1$ 
  while  $h \leq n/9$  do  $h \leftarrow 3h + 1$ 
  while  $h > 0$  do
    for  $j \leftarrow h + 1$  to  $n$  do
       $key \leftarrow A[j]$ 
       $i \leftarrow j - h$ 
      while  $i > 0$  and  $A[i] > key$  do
         $A[i + h] \leftarrow A[i]$ 
         $i \leftarrow i - h$ 
       $A[i + h] \leftarrow key$ 
     $h \leftarrow \lfloor h/3 \rfloor$ 

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$\boxed{9}$ 6 3 1 $\boxed{8}$ 5 2 0 $\boxed{7}$ 4 (Initial value of A .)
 $\boxed{7}$ 4 2 0 $\boxed{8}$ 5 3 1 $\boxed{9}$ 6 (With $h = 4$, A is 4-sorted.)
 0 1 2 3 4 5 6 7 8 9 ($h = 1$)

SHELLSORT is known to be $O(n^{1.5})$.

Average-case appears to be around $\Theta(n^{1.25})$.

Sorting Summary

Sorting

$\Theta(n)$ COUNTING-SORT^a, RADIX-SORT^a,
BUCKET-SORT^a

$\Theta(n \lg n)$ MERGE-SORT, HEAPSORT,
QUICKSORT^b

$O(n^{1.5})$ SHELLSORT

$\Theta(n^2)$ INSERTION-SORT^c

^aDepends on assumptions about the distribution of data.

^bAverage-case. Worst-case is $\Theta(n^2)$.

^cAverage- and worst-case. Best-case is $\Theta(n)$.

Selection

$\Theta(n)$ RANDOMIZED-SELECT^a, SELECT

$\Theta(n \lg n)$ Any $\Theta(n \lg n)$ sorting algorithm

^aAverage-case. Worst-case is $\Theta(n^2)$.

Priority Queues implemented by binary heaps are $\Theta(n)$ to initialize and $O(\lg n)$ /operation.