Title:

**What is that?**

The Comb Sort is another comparison and exchange sort which builds on the idea of the and adds a potential optimization or two.

**Common Terms**

Turtle - a name given to small numbers that appear towards the end of a data set. When used in a , small numbers at the end of the set take a very long time to get to the front of the list, and hence are called turtles because of the lack of speed.

## The Algorithm

## Each iteration of the algorithm consists of three stages:

1. Calculation of the value.
2. Iterating over the *data set* each item with the item that is *“gap”* elements further down the list and swapping them if required.
3. Checking to see if the gap value has reached one and no have occurred. If so, then the set has been sorted.

**Calculating the “gap”**

calculation of the gap is as simple as starting with the size of the data set and a shrink factor of each iteration

**Iterating and Swapping**

same as the Bubble Sort. The only difference in the Comb Sort is that the items which are compared areiand as opposed to and *.*

**Pseudocode**

1. using the length/size of the set as the gap.
2. do the comb sort with the current gap
3. reset the gap value so that it shrinks(1.3)
4. in order the card

**Big O notation in the best/worst/average case**

|  |  |  |
| --- | --- | --- |
| Best case | Worse case | Average case |
|  |  |  |