



**Why does insertion sort take fewer steps than selection sort for this case? Include an explanation of why the approaches differ by the amount they do.**

Insertion sort compares the current value to the values left of its current position until its correct position is located, then the value is inserted. This means that the amount of steps required per value in the list depends on how far the value needs to move.

Selection sort compares the current value to all the remaining unsorted values to find the next minimum to add to the sorted list. This means that selection sort performs the same number of steps regardless of the input.

This difference in performance seen in the figure is because insertion sort takes advantage of partial ordering of values within the random-ordered list, reducing the number of steps required per value in list.