In[122]:= `(* processing selection sort times *)`
`data = Import["/Users/john/structures/assignment2/bubble.csv", "CSV"];`
`wordCounts = data[[All, 1]];`
`comparisons = data[[All, 2]];`
`swaps = data[[All, 3]];`
`times = data[[All, 4]];`

In[127]:=

`time[words_] = Fit[Transpose[{wordCounts, times}], {1, words, words^2}, words]`

`Show[ListPlot[Transpose[{wordCounts, times}]],`
` Plot[time[words], {words, 0, 200 000}, PlotStyle → Red],`
` PlotLabel → "Time vs. Word Count for Bubble Sort (Strings)"]`

`comparisons[words_] =`
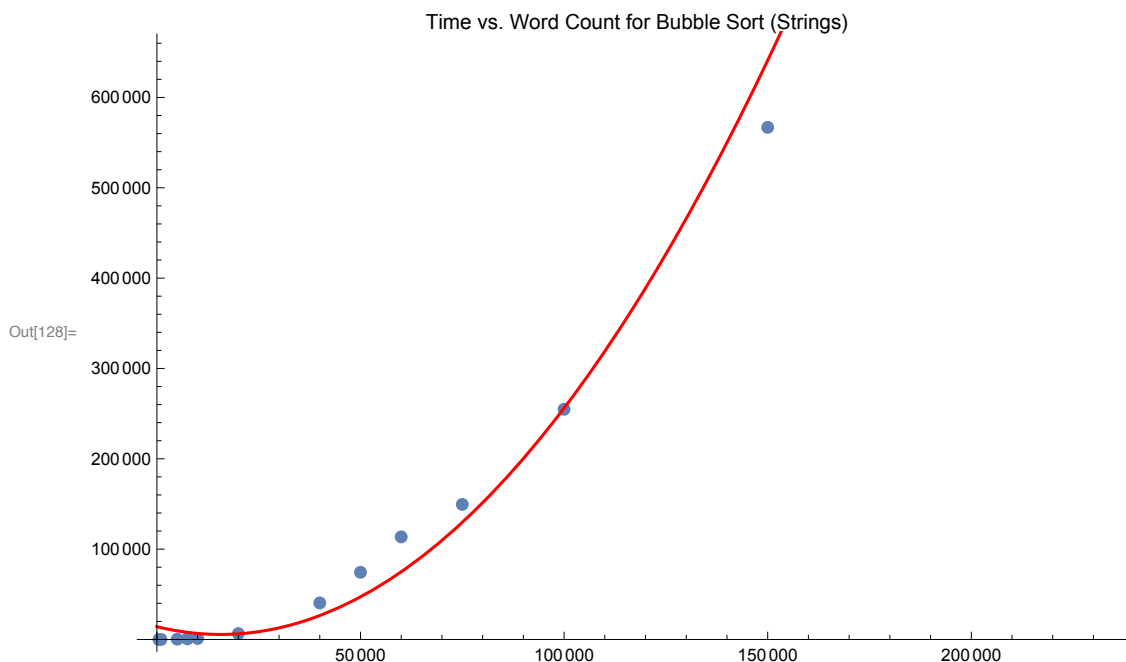` Fit[Transpose[{wordCounts, comparisons}], {1, words}, words]`

`Show[ListPlot[Transpose[{wordCounts, comparisons}]],`
` Plot[comparisons[words], {words, 0, 200 000}, PlotStyle → Red],`
` PlotLabel → "Comparisons vs. Word Count for Bubble Sort (Strings)"]`

Out[127]= $14\,164.6 - 1.1004\,\text{words} + 0.0000351943\,\text{words}^2$



Time vs. Word Count for Bubble Sort (Strings)

Out[128]=

Set::write : Tag List in
 {499500, 49995000, 4999950000, 11249925000, 199990000, 27820984555, 799980000, 124750, 12497500, 1249975000,
  1799970000, 28121250, 2812462500}[words_] is Protected. ≫

Out[129]= $-2.26477 \times 10^9 + 106\,594.\,\text{words}$

Comparisons vs. Word Count for Bubble Sort (Strings)

Out[130]=