[8.8] Relational operators compare strings

The relational operators (=, <, >, etc.) work on strings as well as numbers, although this is not specified in the calculator *Guidebook*. For example

"a" > "b" returns *false*
"a" < "b" returns *true*
"a" > "A" returns *true*
"xyz" = "xyz" returns *true*

Comparisons for lists and matrices with string elements are performed element by element, for example

{"a","b","c"} > {"c","b","a"} returns {*false*, *false*, *true*}

Strings are sorted in order of the TI-89 / TI-92 Plus character codes as found in Appendix B of the *Guidebook*. For example, these comparisons all return *true*:

"A" < "a" *character code 65 is less than code 97*
"<" < "a" *character code 60 is less than code 97*

If the strings are of unequal length, then shorter strings are 'less' than longer strings with identical initial characters; these expressions are true:

"aa" < "aaa" returns *true*
"a" < "azz" returns *true*

This behavior conforms to lexicographical (English dictionary) ordering, in which short words precede longer words. This character-code ordering may not necessarily be the ordering you want. As an example, the character codes for all the international characters are greater than the English alphabetic characters. This means that

"cat" < "ä" returns *true*

The commands *SortA* and *SortD* also use these ordering rules when sorting lists and vectors with string elements.