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*Decreasing types in o-minimal theories.* Preliminary report.

We define the notion of a “decreasing type” in o-minimal theories. An  $n$ -type is decreasing if, roughly, given an ordering of the variables, no earlier variable is infinitesimal compared with a later variable. Any type can be made to be decreasing via reordering of the variables, and is interdefinable with a decreasing type of a certain standardized form. Combining decreasing types with definable types yields a clearer picture of definable elementary extensions in o-minimal theories. Furthermore, decreasing types can be applied to answer a question concerning continuous extensions of definable functions. (Received August 18, 2008)