Math 131A Winter 2018: Homework 3, Due 2/2 1. Show that if $s_n \to s$, then $s_n^3 \to s^3$. Is the converse true?

 $2\text{-}6. \hspace{0.1cm} 9.4, \hspace{0.1cm} 9.6, \hspace{0.1cm} 9.10, \hspace{0.1cm} 9.12, \hspace{0.1cm} 9.14.$

7. Suppose that the sequence (s_n) is decreasing, and suppose the set S = $\{s_1, s_2, ...\}$ has a lower bound. With these assumptions, show that (s_n) converges.