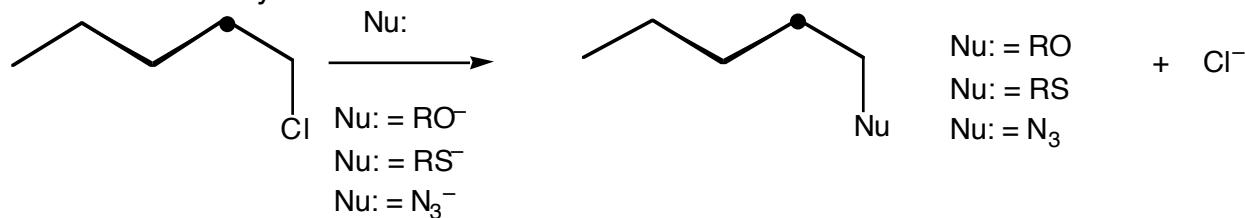
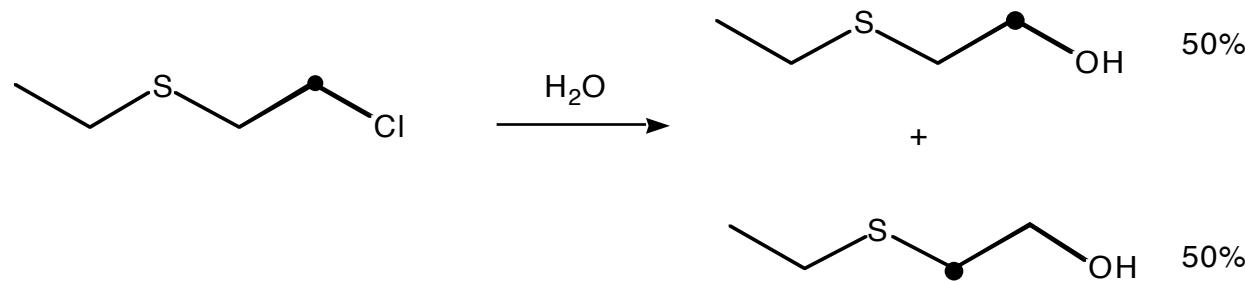


Problem 68, Chemistry 301X - 2006

Treatment of labeled pentyl chloride with a variety of nucleophiles such as RO^- , RS^- , or N_3^- leads to straightforward formation of the products shown. It should take you about 10 seconds to correctly write a mechanism for one of these reactions. Please do so.



However, when a sulfur is incorporated into the system as shown below, something odd happens.



Write a mechanism that explains the mysterious labeling results.