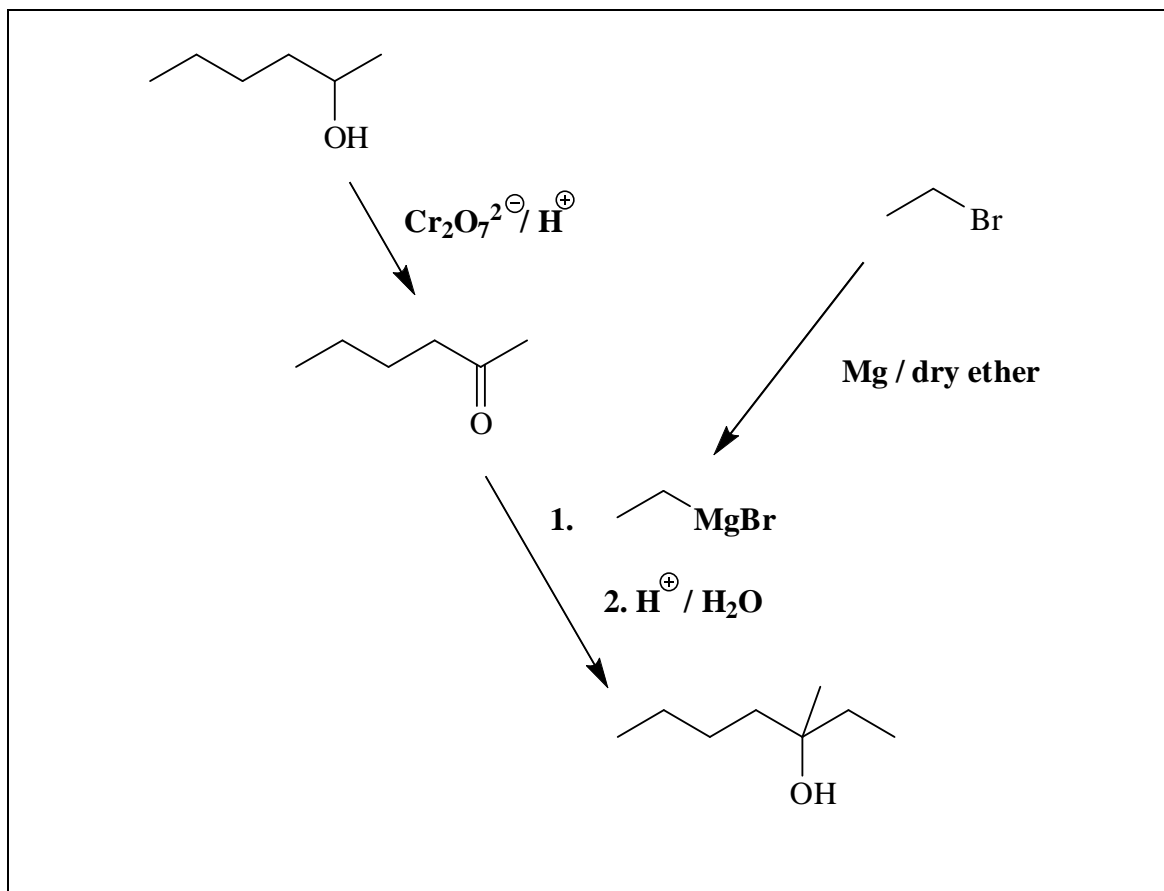


Marks
6

- Devise a synthesis of 3-methylheptan-3-ol using the two starting materials shown. Show the structures of any intermediate products involved, as well as the reagents required for each step. More than one step is required.



Would the product be isolated as a racemic mixture or a single enantiomer or is the product achiral?

racemic mixture