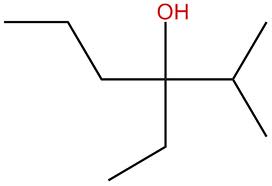
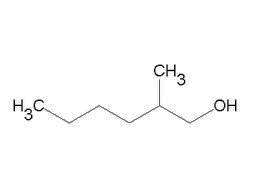
1. Define polymerization reaction and then complete the following polymerization reactions:
   1. **Polymerization reaction**-
   2. Propylene: CH2=CHCH3 🡪
   3. Chloroethene: CH2=CHCl 🡪
   4. Tetrafluoroethene: CF2=CF2 🡪
2. Write the formulas for alcohols and ethers:
   1. alcohol R-formula \_\_\_\_\_\_\_\_\_\_ c. ether R formula \_\_\_\_\_\_\_\_\_\_\_\_
   2. alcohol molecular formula \_\_\_\_\_\_\_\_\_ d. ether molecular formula \_\_\_\_\_\_\_\_
3. Name each of the following alcohols, give the molecular formula, and state whether the alcohol is primary, secondary, or tertiary.
   1. [](http://www.google.com/imgres?newwindow=1&hl=en&biw=1311&bih=521&tbm=isch&tbnid=qbzYKBQUcg4WjM:&imgrefurl=http://wtt-pro.nist.gov/wtt-pro/index.html?cmp%3D3-ethyl-2-methyl-3-hexanol&docid=k-3hi6zj3N4DWM&imgurl=http://wtt-pro.nist.gov/wtt-pro/image.png?cmp%3D3-ethyl-2-methyl-3-hexanol&w=512&h=350&ei=C4Q2UrCgCYic9QTeuoDIBw&zoom=1&iact=rc&dur=1&page=3&tbnh=142&tbnw=214&start=25&ndsp=25&ved=1t:429,r:34,s:0,i:188&tx=96&ty=65) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. CH3CH2CH(OH)CH2CH(CH3)CH3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. CH3CH2CH=CHCH2CH2OH \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Draw each of the following alcohols or ethers.
   1. 2-ethyl-3-heptanol
   2. 1,5-pentanediol
   3. Methyl pentyl ether
   4. 2-propoxyhexane
5. Complete the following reactions:
   1. [](http://www.google.com/imgres?newwindow=1&hl=en&biw=1311&bih=521&tbm=isch&tbnid=apSs8fRlinq5eM:&imgrefurl=http://www.chemsynthesis.com/base/chemical-structure-13427.html&docid=wSCKXCdy3zOyPM&imgurl=http://www.chemsynthesis.com/molimg/1/big/13/13427.gif&w=400&h=300&ei=C4Q2UrCgCYic9QTeuoDIBw&zoom=1&iact=hc&vpx=380&vpy=165&dur=669&hovh=194&hovw=259&tx=141&ty=109&page=3&tbnh=137&tbnw=175&start=25&ndsp=25&ved=1t:429,r:27,s:0,i:167) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_

H+

🡪

180 C

H+

🡪

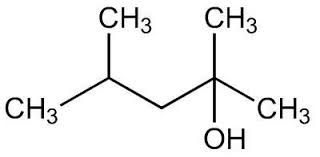
180 C

* 1. CH3CH(OH)CH2CH3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ +\_\_\_\_\_\_\_\_\_\_\_\_\_

H+

🡪

40 oC

* 1. 2 CH3CH2OH \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_
  2. [](http://www.google.com/imgres?newwindow=1&hl=en&biw=1311&bih=521&tbm=isch&tbnid=KF2jSLputuKGmM:&imgrefurl=https://us.vwr.com/store/jump/product/7988638US/ALFAL08795&docid=fm055bx8mVBjpM&imgurl=https://media.vwr.com/stibo/low_res/6941469.jpg&w=400&h=197&ei=uo82UsDtDoXO8QTagIEw&zoom=1&iact=rc&dur=2&page=2&tbnh=89&tbnw=176&start=6&ndsp=26&ved=1t:429,r:14,s:0,i:123&tx=132&ty=-64) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_

H+

🡪

180 C