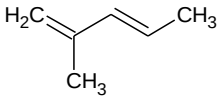
Power Point Study– 09-3Alkene Reactions Name:

1) Which of the following reagents might serve as the basis for a simple chemical test that would distinguish between pure 1-hexene and pure hexane?
   A) Bromine in carbon tetrachloride B) Dilute aqueous potassium permanganate
   C) Concentrated sulfuric acid D) All of the above
   E) Answers A) and B) only

2) Complete the following reactions with the appropriate starting material, reagents or product. Draw the structures of the chemicals.

   a) $CH_2=CHCH_2CH_3$ $\xrightarrow{\text{?}}$ $CH_3CH_2CH_2CH_3$

   b)  $\xrightarrow[\text{Zn, AcOH}]{O_3}$?

   c) ? $\xrightarrow{H_2/Pd}$ 2-methylhexane

   d) $\xrightarrow{\text{Hot } KMnO_4}$ 2 mols of CH_3CH_2COOH

3) Complete the following chart of reactions: