MAD ORG. CHEM. MIN. # 6			
LAST NAME	FIRS	ST NAME	
PS #	Circle Class:	AM	PM

All protons in the same magnetic environment are referred to as an equivalent set of protons. Each equivalent set produces a signal in the <sup>1</sup>H NMR spectrum. Label each equivalent set of protons (a, b, etc.) in the compounds below.

 $\begin{array}{c} & \underset{I}{\overset{}{\underset{I}{\overset{}}{\overset{}}}} \\ \text{A.} & \text{CH}_3\text{-}\overset{C}{\underset{I}{\overset{}}}\text{-} \\ & \underset{C}{\overset{}{\underset{I}{\overset{}}}} \\ & \text{CH}_3 \end{array}$ 

 $\begin{array}{c} O & O \\ \blacksquare & \blacksquare \\ \mathsf{B}. \ \mathsf{CH}_3\mathsf{O}\text{-}\mathsf{C}\text{-}\mathsf{CH}_2\text{-}\mathsf{C}\text{-}\mathsf{CH}_3 \end{array}$ 

 $\begin{array}{c} O & O \\ \blacksquare & \blacksquare \\ C. & CH_3\text{-}C\text{-}CH_2\text{-}CH_2\text{-}C\text{-}CH_3 \\ \end{array}$ 

CH<sub>3</sub> D. CH<sub>3</sub>-CH-CH-CH<sub>3</sub> CH<sub>3</sub>

