Quiz 1 (50 points)

Name	Key	

1. Show the complete mechanism for the following reaction. Label each step in the mechanism as *initiation*, *propagation*, or *termination* steps. (25 points)

CH3CH3 + Cl2 hv CH3CH2CI + HCI

C1-C1 hv 2 C1. enthatici Step

CH3CH2-H + W.C1 - B CH3CH2 + H-CI propagation

CH3CH3-H + VC1-C1 - CH3CH2-C1 + C1.

CH3CH2 V CH2CH3 -0 CH2CH4 -0 Ref

2. Show all of the products formed from the following reaction, including all stereoisomers. How many *distinct* products total are there? (25 points)

NBS
$$\frac{N}{\Delta}$$
(NBS = N-bromosuccinimide)
$$\frac{E}{\Delta}$$
(\pm)
$$\frac{E}{\Delta}$$
(\pm)
$$\frac{E}{\Delta}$$
(\pm)

9 products total