Chapter 10 Homework Key

16, 17, 20, 21, 27, 30, 41, 45

16. (a) $CH_3CH_2=CH_2$ (b) $H_2C=CHC1$

17. (a) \sim CH₂CH(C=N)CH₂CH(C=N)CH₂CH(C=N) \sim or \sim CH₂CHCH₂CHCH₂CHCH₂CHCH₂CHCH \sim

20. (a)

27. Nylon 88: ~CO(CH₂)₆CO-NH(CH₂)₈NH-CO(CH₂)₆CO-NH(CH₂)₈NH~

30. \sim NH(C₆H₄)HN-OC(C₆H₄)CO-NH(C₆H₄)HN-OC(C₆H₄)CO \sim

or
$$NH \longrightarrow NH \longrightarrow C \longrightarrow C \longrightarrow C \longrightarrow n$$

 $41. \sim \!\! CH_2C(CH_3)_2CH_2C(CH_3)_2CH_2C(CH_3)_2CH_2C(CH_3)_2 \sim \!\!\!\!$

45. There cannot be a CH₃ at the end because it would terminate the sequence (carbon can only have 4 bonds total, this shows 5). This CH₃ should not be part of the chain but as a branch to the main chain. The CH is lacking a bond; once again carbon should have 4 bonds, moving the CH₃ would fix this issue