**CHE-2060 Naming Alkanes, -enes & -ynes Worksheet Key 0.33 ea**

**A. Draw bond-line drawings of the following alkanes:***NOTE: Some names may be incorrect. If so, correct them!*1. 2,2,3,3-tetramethylpentane

2. 2,3-dimethylbutane

3. 3,4,4,5-tetramethylheptane

4. 3,4-dimethyl-4-ethylheptane 4-ethyl-3,4-dimethylheptane

5. 2,4-dimethyl-4-ethylheptane 4-ethyl-2,4-dimethylheptane

6. 2,5-dimethylhexane

7. 2-methyl-3-ethylpentane 3-ethyl-2-methylpentane

 8. 2,2,4-trimethylpentane

9. 2-bromo-5-methylheptane

Br

10. 1-ethyl-2-iodocyclopentane

I

11. bromocyclobutane

Br

12. 1,2,2-trimethylcyclopropane

13. 4-ethyl-2-methyl-1-propylcyclohexane 1-ethyl-2-methyl-4-propylcyclohexane

14. 1-chloro-5-methylhexane

Cl

15. ethylcyclohexane 16. 1-methyl-2-propylcyclopentane

**B. Due in next week’s lab: Draw these alkanes**

1. 3-methylhexane

2. 5-propylnonane

3. 4-ethyl-5-methyloctane

4. 4-methylheptane

5. 4-ethylheptane

6. 1-propylcyclohexane

7. 2-amino-4-bromo-6-chloro-3-methylheptane

8. 1,3-dichloropropane

9. 4-ethyl-3-iodononane

10. 3-chloro-4-(1,1-dimethylethyl)-heptane

11. 4-(1-methylethyl)-octane

12. 2-bromo-2-iodopropane

13. 3-aminomethylhexane

14. 1-ethyl-3-methylcyclopentane

15. 3-ethyl-5-(1-methylethyl)-4-methyloctane

16. 1-butylcyclobutane

17. 1-bromo-3-chloro-4-methylcyclohexane

18. 1-ethyl-2-iodocyclopentane

19. 1,1,1,2,2,2-hexafluoroethane

20. 4-(1-fluoromethyl)-octane

21. 1-(1-methylethyl)-4-(1-methylbutyl)-cyclohexane

22. 2-chlor-4-fluor-3,3-dimethylhexane

23. 3-ethylhexane

**B. KEY**



**C. Draw these alkenes:**

1. 1-butene

1. 4-methyl-2-pentene

1. 3-methyl-3-heptene

1. 2-propyl-1-hexene
2. 3,6-dimethyl-3-octene
3. 5-bromo-4-chloro-1-heptene

Cl

Br

1. 2,5-dimethyl-4-octene
2. 2-bromo-4-methyl-3-hexene

Br

1. 2-bromo-4-ethyl-7-methyl-4-octene

Br

1. 3,3-dimethylpentene
2. 6-bromo-2,3-dimethyl-2-hexene

Br

1. 3,8-dibromo-4-nonene

Br

Br

1. 3-methyl-3-hexene

**D. Draw these alkynes:**

1. 3-bromo-2-chloro-4-octyne

Cl

Br

1. 1-chloro-5-methyl-3-hexyne

Cl

1. 5,6-dimethyl-2-heptyne

1. 5-ethyl-3-octyne
2. 1-bromo-1-pentyne

Br