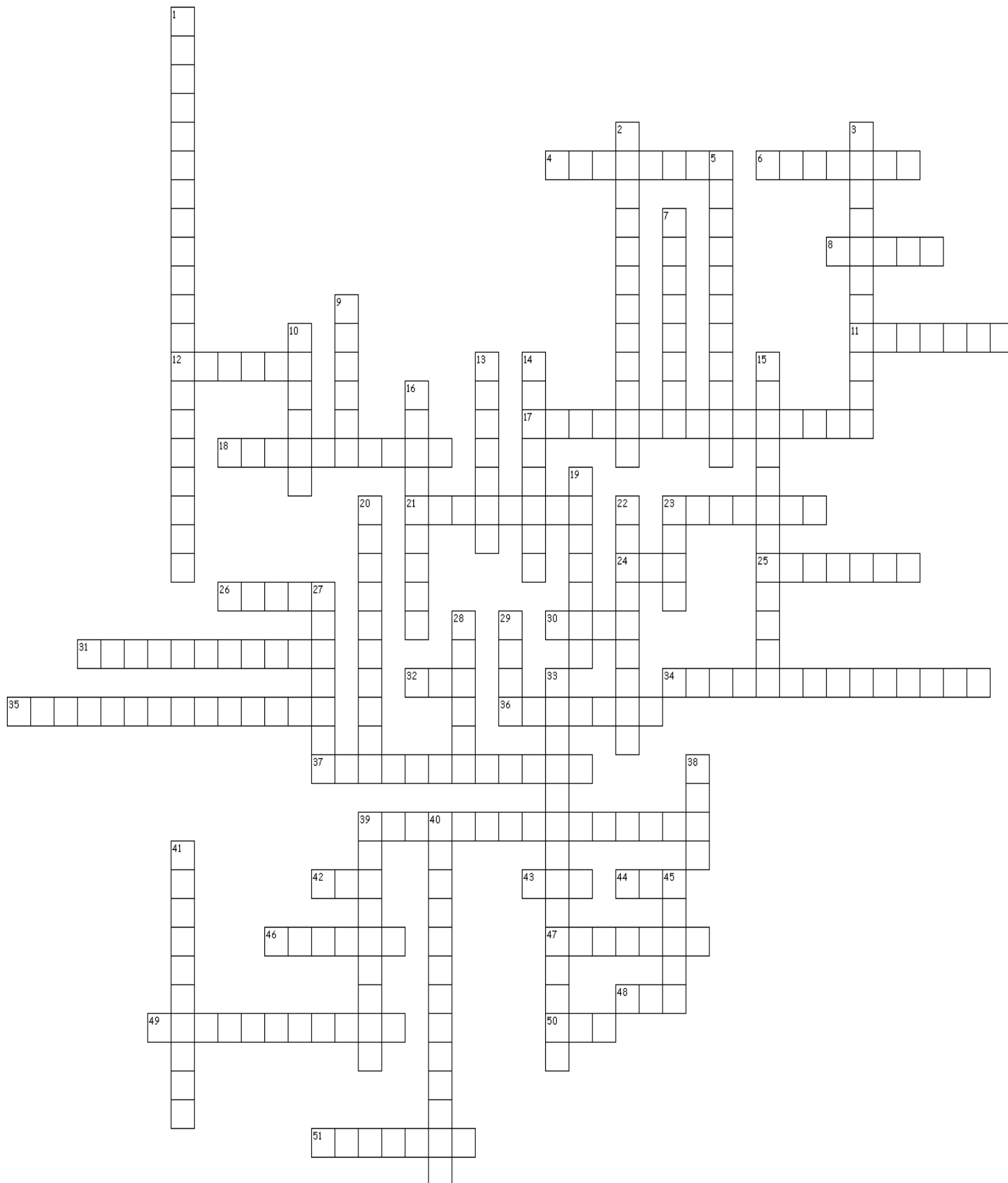


Unit 9: Organic Chemistry Exam Review Sheet

Name _____ Date _____ Mod _____ Exam Date _____



Across

4. Chains of small molecules
6. Aliphatic compounds with at least one double bond between carbon atoms
8. This attached group is C_2H_5
11. A -OH functional group indicates that the substance is an ____.
12. Fats, oils and waxes
17. RNA
18. Polymers are broken through ____ reactions where one large molecule is split by the addition of a water molecule
21. This functional group indicates an alcohol (-OH)
23. This bond attaches amino acids together
24. Nine carbons
25. Aliphatic compounds with at least one triple bond between carbon atoms
26. These acids have a carboxyl group and an amino group
30. One carbon
31. Aromatic compounds have this structure (2 words)
32. Found in the nucleus of cells
34. A chain of simple sugars that are bound together
35. The process of getting an ester from a reaction involving an alcohol combining with an organic acid in the presence of concentrated sulfuric acid
36. Chain of amino acids
37. Polymers are created through ____ reactions where two small molecules are joined together and a water molecule is removed
39. An atom or group of atoms that is responsible for the specific properties of an organic compound
42. Four carbons
43. Eight carbons
44. Two carbons
46. This attached group is C_3H_7
47. Create saturated, solid lipids
48. Six carbons
49. A -COOH functional group indicates that the substance is an ____.
50. Ten carbons
51. A small molecule that can be bound into chains creating a large molecule

Down

1. DNA
2. Compounds containing carbon and hydrogen
3. Fatty acids with many double bonds
5. This type of hydrocarbon will have a hydrogen replaced with an atom of a different element
7. These compounds have benzene rings
9. This attached group is CH_3
10. These are often used as artificial flavors and scents
13. Compounds with the same chemical formulas, but different molecular structures
14. This functional group indicates an organic acid (-COOH)
15. These are chains of attached nucleotides
16. All organic compounds that do not have benzene rings
19. Saturated hydrocarbons
20. This is the result of a hydrogen being replaced by an element from group 17 in a hydrocarbon; also called an alkyl halide
22. Most organic compounds are not naturally occurring; they are ____.
23. Five carbons
27. This word refers to compounds containing carbon
28. Create unsaturated lipids (liquids and solids)
29. Three carbons
33. A simple sugar such as glucose
38. Seven carbons
39. A chain of carbons containing a carboxyl group
40. Sugars and starches
41. Another term for sugar
45. Twisted shape of DNA and RNA

Also for the exam:

- Be able to draw, name and write the formula for various aliphatic compounds
- Be able to draw and name substituted hydrocarbons (similar to what is in your notes)
- Identify a condensation, hydrolysis, or esterification reaction

On loose-leaf:

1. Draw (using full notation), name, and write the formula for an alkane chain with 4 carbons.
2. Draw (using full notation), name, and write the formula for an alkene chain with 5 carbons.
3. Draw (using full notation), name, and write the formula for an alkyne with chain 8 carbons.
4. Draw (using proper shorthand notation), name, and write the formula for 5 isomers of nonane.
5. Draw (using full notation) and write the formula for benzene.
6. Draw (using proper shorthand notation), name, and write the formula for an alkane of 7 carbons with 2 methyl groups and an ethyl group.