

ANSWER KEY	Chapter 15 Test Answer Key	BLM 15.3.1A
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Answers to Multiple-Choice Questions

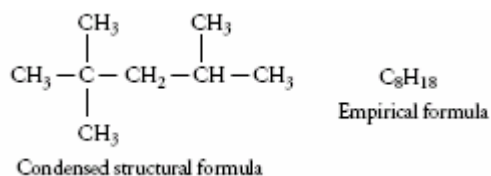
1. b
2. a
3. b
4. d
5. b
6. a
7. d
8. a
9. a
10. c
11. c
12. d
13. a
14. c
15. b

Answers to Numerical Response Questions

16.	2,3,2,4
17.	3,1,4,2
18.	6,7,3,1 or 7,6,3,1
19.	3,2,1
20.	3,2,4
21.	7,6,8,5
22.	3,4,1,2
23.	8,4,6,1
24.	2,4,2,2

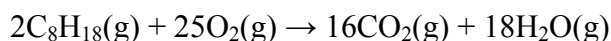
Answers to Written Response Questions

25. The primary component of the gasoline that you purchase to fuel your automobile is 2,2,4-trimethylpentane. The combustion of automobile fuel is one factor linked to the accelerated greenhouse effect.
- a) The condensed structural formula and empirical molecular formula for 2,2,4-trimethylpentane is



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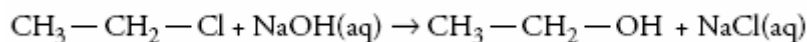
- b) The balanced equation for the complete combustion of 2,2,4-trimethylpentane is



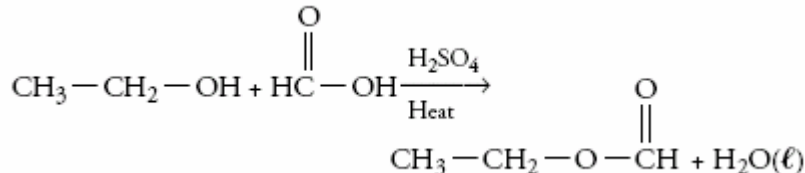
- c) An increase in the use of fossil fuels is expected to increase the level of greenhouse gasses in the atmosphere. It is expected that disruptions to global weather patterns, leading to shifts in precipitation and vegetation patterns, will affect most areas of the world. As well, a warmer atmosphere is likely to lead to melting of the polar ice sheets, with a corresponding change in sea level, and a general increase in severe storms in areas such as the tropics.

26. Step 1 is a substitution reaction replacing the chloride from chloroethane with a hydroxyl group to form ethanol. Step 2 is an esterification reaction of the ethanol from step 1 with methanoic acid to form ethyl methanoate and water.

Step 1

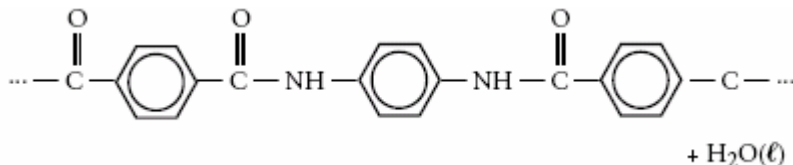


Step 2



27. Reaction 1 is a condensation polymerization. Reaction 2 is an addition polymerization.

Reaction I



Reaction 2

