

Reactions HW #4 - COMBUSTION

name: _____

USE loose leaf paper, write out answers completely (or copy questions)

1. Combustion reactions always have these 2 products...
2. Combustion reactions always combine a hydrocarbon with...
3. A hydrocarbon is a molecule which ONLY contains...
4. If octane (gasoline) burns cleanly and completely, what are the products?
5. Propane is written as C_3H_8 . Write the balanced chemical equation with phases for its combustion.
6. Define EXOTHERMIC and ENDOTHERMIC reactions.
7. Combustion reactions are always exothermic or endothermic reactions?
8. If methane gas in your Bunsen burner does not get enough oxygen, the combustion is not complete and carbon is also a product (along with the other two products you would expect from combustion). Balance this type of incomplete combustion with this extra product.
9. Soot, the fine black dust that fills up chimneys everywhere is the carbon that does not get to combine into carbon dioxide. Explain why increasing oxygen would eliminate this carbon from forming as soot in an incomplete combustion reaction.
10. List the other four kinds of chemical reactions. Which of the five is your favorite and why? Be specific and or funny, it will help you remember.