

Chemistry 22 Quiz #1 Name _____

Name each of the compounds according to the IUPAC system. If the compound is an acid, use the proper acid name.

1. $\text{Fe}_2(\text{CO}_3)_3$ _____

2. H_2SO_3 _____

3. PbO_2 _____

4. N_2O_4 _____

5. NO _____

6. HI _____

7. CuSO_4 _____

8. FeCO_3 _____

Write the formula for each compound in the proper format from the IUPAC name.

9. Aluminum Carbonate _____

10. Perchloric acid _____

11. Hydrosulfuric acid _____

12. Ammonium phosphate _____

13. Diphosphorous pentoxide _____

14. Barium Nitride _____

15. Carbon monoxide _____

16. Iron (II) phosphate _____

17. A metal has a heat capacity of 0.50 Joule per gram, per degree Celcius ($J/(g \cdot ^\circ C)$). The initial temperature of the metal is $150.0^\circ C$ and the final temperature is $28.0^\circ C$. The piece of metal weighs 10 grams. How much heat did the metal lose when placed into water?

18. Another piece of metal is heated to $102^\circ C$ and placed in water. The metal cools down, and the water heats up. The final temperature of the system is $27^\circ C$. The metal weighed 15 grams. After a short calculation the lab technician found that the water had absorbed 146.25 joules of heat energy from the metal. What is the specific heat of the metal?

