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Identify the correct ionic state of the following elements: N and Br. Show work to get full credit

2. ♥ STUDY CHECK

Combine the following ions or give the ions given the final compound: Na^+ and F^- and Na_3N . Show work to get full credit

3. ♥ STUDY CHECK

Name or give the formula for the following ionic compounds: (a) Sodium fluoride (b) Na_3N Show work to get full credit

4. ♥ STUDY CHECK

Name or give the formula for the following ionic compounds: (a) Manganese(IV) oxide (b) AuCl Show work to get full credit

5. ♥ STUDY CHECK

Name of give the name of the following covalent chemicals: (a) SCl_2 (b) diboron thrioxide Show work to get full credit

6. ♥ STUDY CHECK

Name or give the formula for the following ionic compounds: (a) phosphoric acid (b) $Mg(OH)_2$ Show work to get full credit

7. ♥ STUDY CHECK

Calculate the redox number of the following acids: (a) H_2MnO_4 (b) $H_2Cr_2O_7$ Show work to get full credit

8. ♥ STUDY CHECK

Name of give the name of the following oxosalts: (a) $CaSO_4$ (b) Aluminum sulfate Show work to get full credit

9. ♥ STUDY CHECK

Name or formulate the following hydrogensalts: (a) $LiHS_2O_3$ (b) LiH_2PO_4 (c) sodium hydrogen-phosphate Show work to get full credit

/ – Page 3 of – <u>Name:</u>

10. ♥ STUDY CHECK

Name or formulate the following hydrates: (a) $LiNO_3 \cdot H_2O$ (b) $Na_3PO_4 \cdot 3 H_2O$ (c) sodium sulfate tetrahydrate Show work to get full credit

11. ♥ STUDY CHECK

Name or formulate the following common chemicals: (a) ammonia (b) methane Show work to get full credit

12. ♥ STUDY CHECK

Calculate the number of C, H, N and O atoms in 3.5 moles of caffeine ($C_8H_{10}N_4O_2$). Show work to get full credit

13. ♥ STUDY CHECK

Calculate the molar mass of glucose $C_6H_{12}O_6$ Show work to get full credit

14. ♥ STUDY CHECK

Calculate the MW of table salt (NaCl) and the grams in 20 moles of this salt. Show work to get full credit

15. ♥ STUDY CHECK

Methane is a chemical used as a fuel. Calculate how many grams of methane CH_4 contains 5×10^{25} H atoms. Show work to get full credit

16. ♥ STUDY CHECK

Hydrogen reacts with oxygen to produce water according to the following reaction

$$2 H_2(g) + O_2(g) \longrightarrow 2 H_2O(g)$$

Calculate the number of moles of water produced by 4 moles of oxygen. Show work to get full credit

17. ♥ STUDY CHECK

Ammonia is produced by reacting molecular nitrogen and molecular hydrogen following the reaction:

$$3\,H_{2(g)}+N_{2(g)}\longrightarrow 2\,NH_{3(g)}$$

Calculate the percent yield of ammonia if 1 moles of nitrogen gives 1.5 moles of ammonia Show work to get full credit

18. ♥ STUDY CHECK

In the synthesis of ammonia (NH₃):

$$3 H_{2(g)} + N_{2(g)} \longrightarrow 2 NH_{3(g)}$$

you mix 3 moles of hydrogen with 0.5 moles of nitrogen. Identify the limiting and excess reagents and indicate the moles of leftover remaining. Show work to get full credit