## Types of Chemical Bonds

Classify the following as IONIC (metal + nonmetal), COVALENT (nonmetal + nonmetal), or BOTH (metal + polyatomic ion). Metals are located on the left side of the zigzag line on the periodic table. Nonmetals are located on the right side of the zigzag line. Hydrogen is a nonmetal, even though it is located on the left side of the periodic table. Polyatomic ions contain covalently bonded nonmetal atoms that possess an ionic charge.

| 1. | $CaCl_2$ |  |
|----|----------|--|
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11. MgO \_\_\_\_\_

12. NH<sub>4</sub>Cl \_\_\_\_\_

13. HCl \_\_\_\_\_

14. KI \_\_\_\_\_

15. NaOH \_\_\_\_\_

16. NO<sub>2</sub>\_\_\_\_\_

17. AlPO<sub>4</sub>\_\_\_\_\_

18. FeCl<sub>3</sub>\_\_\_\_\_

19. P<sub>2</sub>O<sub>5</sub>\_\_\_\_\_

20. N<sub>2</sub>O<sub>3</sub>\_\_\_\_\_