**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_**

**HONORS\*Conjugate Acids & Bases**

**In the following, what are the conjugate bases of these acids?**

|  |  |
| --- | --- |
| Original Acid | Conjugate Base? |
| HNO3 |  |
| H2O |  |
| H3O+ |  |
| H2SO4 |  |
| HBr |  |
| HCO3-1 |  |

**In the following what are the conjugate acids of these bases?**

|  |  |
| --- | --- |
| Original Base | Conjugate Acd |
| (OH)­-1 |  |
| H2O |  |
| HCO3-1 |  |
| SO4-2 |  |
| ClO4-1 |  |
| F-1 |  |

**In the following, identify the acid (A), base (b), conjugate acid (CA), and conjugate base (CB)**

* 1. HClO4(aq) + H2O(l) ⇄ H3O+(aq) + ClO4–(aq)
  2. H2SO3(aq) + H2O(l) ⇄ H3O+(aq) + HSO3–(aq)
  3. HC2H3O2(aq) + H2O(l) ⇄ H3O+(aq) + C2H3O2–(aq)
  4. H2S(g) + H2O(l) ⇄ H3O+(aq) + HS–(aq)
  5. HSO3–(aq) + H2O(l) ⇄ H3O+(aq) + SO32–(aq)
  6. NH3(g) + H2O(l) ⇄ NH4+(aq) + OH–(aq)
  7. HF(aq) + HSO3–(aq) ⇄ F–(aq) + H2SO3(aq)
  8. HNO2(aq) + HS–(aq) ⇄ NO2–(aq) + H2S(aq)