

Name: \_\_\_\_\_ Date: \_\_\_\_\_

### pH and pOH

Fill in the missing sections:

|     | [H <sup>+</sup> ]      | pH    | [OH <sup>-</sup> ]     | pOH   | Acid or Base |
|-----|------------------------|-------|------------------------|-------|--------------|
| 1.  | $1 \times 10^{-6}$     | 6     | $1 \times 10^{-8}$     | 8     | Acid         |
| 2.  | $1 \times 10^{-9}$     | 9     | $1 \times 10^{-5}$     | 5     | Base         |
| 3.  | $2.5 \times 10^{-9}$   | 8.6   | $4 \times 10^{-6}$     | 5.4   | Base         |
| 4.  | $4.0 \times 10^{-12}$  | 11.4  | $2.5 \times 10^{-3}$   | 2.6   | Base         |
| 5.  | $2.5 \times 10^{-8}$   | 7.6   | $4.0 \times 10^{-7}$   | 6.4   | Base         |
| 6.  | $1.6 \times 10^{-5}$   | 4.8   | $6.3 \times 10^{-10}$  | 9.2   | Acid         |
| 7.  | $3.16 \times 10^{-3}$  | 2.50  | $3.16 \times 10^{-12}$ | 11.50 | Acid         |
| 8.  | $1.6 \times 10^{-6}$   | 5.8   | $6.3 \times 10^{-9}$   | 8.2   | Acid         |
| 9.  | $5.0 \times 10^{-2}$   | 1.3   | $2.0 \times 10^{-13}$  | 12.7  | Acid         |
| 10. | $1.3 \times 10^{-10}$  | 9.9   | $7.9 \times 10^{-5}$   | 4.1   | Base         |
| 11. | $3.33 \times 10^{-7}$  | 6.48  | $3.00 \times 10^{-8}$  | 7.52  | Acid         |
| 12. | $8.00 \times 10^{-11}$ | 10.10 | $1.25 \times 10^{-4}$  | 3.90  | Base         |
| 13. | $5.0 \times 10^{-4}$   | 3.3   | $1.9 \times 10^{-11}$  | 10.7  | Acid         |
| 14. | $3.2 \times 10^{-14}$  | 13.5  | $3.2 \times 10^{-1}$   | 0.5   | Base         |
| 15. | $1.50 \times 10^{-5}$  | 4.8   | $6.67 \times 10^{-10}$ | 9.18  | Acid         |