

I. Write the oxidation numbers above all of the elements in the following molecules and ions:

- a. SO SO₂ SO₃ SO₃²⁻ SO₄²⁻
- b. ClO₂ ClO⁻ ClO₂⁻ ClO₃⁻ ClO₄⁻
- c. N₂O NO NO₂ N₂O₄ N₂O₅ NO₂⁻ NO₃⁻

II. Write the oxidation number of the sulfur atom above all of the elements in the following:

- a. H₂S b. S c. H₂SO₄ d. S²⁻ e. HS⁻ f. SO₂ g. SO₃

III. Write the oxidation number of the sulfur atom to the right of the elements in the following:

- a. HPO₃ _____ d. H₃PO₄ _____
- b. H₃PO₂ _____ e. H₃P₂O₇ _____
- c. H₃PO₃ _____ f. H₅P₃O₁₀ _____

VI. Write oxidation numbers to the right of the underlined atoms in these molecules and ions:

- a. Cs₂O _____ f. ClF₃ _____ k. MoO₄²⁻ _____
- b. PtCl₂²⁻ _____ g. H₃AsO₃ _____ l. MnO₄ _____
- c. CaI₂ _____ h. SbF₆ _____ m. PtCl₄²⁻ _____
- d. SnF₂ _____ i. TiO₂ _____ n. O₂ _____
- e. Al₂O₃ _____ j. P₄ _____ o. O₃ _____