CONCEPT: LEWIS DOT STRUCTURES: EXCEPTIONS

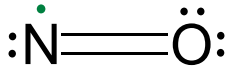
- Some elements can have _____ or _____ octet electrons around themselves and maintain stability.
  - □ Recall, their non-octet number of electrons is _____ their group number.
  - □ **Incomplete Octet**: Group 2A = _____ and Group 3A = _____.
  - □ **Expanded Octet**: Group 5A = _____, Group 6A = _____, Group 7A = _____, Group 8A = _____.
    - This is true for elements that are in Periods ____ and lower.

EXAMPLE: Draw the Lewis Dot Structure for xenon dibromide molecule, $XeBr_2$.

PRACTICE: Determine the Lewis Dot Structure for the following compound: $SOCl_2$

Radicals

- **Free Radicals** are molecules or ions with a(n) _____ electron around an element.
  - □ Radicals compounds always have a(n) _____ number of total valence electrons.
  - □ To draw, place the electron on the element that gives _____ formal charges.



EXAMPLE: Draw the Lewis Dot Structure for the radical of nitrogen dioxide, NO_2.

CONCEPT: LEWIS DOT STRUCTURES: EXCEPTIONS

PRACTICE: Draw the Lewis Dot Structure for the radical hydroxide, OH.

PRACTICE: Draw the Lewis Dot Structure for $POCl_3$.

PRACTICE: Metalloids can sometimes adopt the bonding preferences of similar nonmetals. Based on your knowledge of expanded octets, draw the Lewis Dot Structure for the following ion, SiF_6^{2-}.