CONCEPT: LEWIS DOT SYMBOLS

- Lewis Dot Symbols (Electron Dot Diagrams) are diagrams that represent the ______ electrons of an atom or ion.
 - □ For Main Group Elements, number of *valence electrons* = _____.
 - □ For Transition Metals, number of valence electrons = _____ + electrons.

EXAMPLE: Which element will possess the most valence electrons?

a) S

b) Al

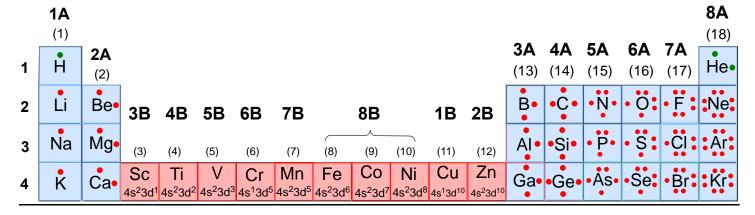
c) Ca

d) H

e) Br

Drawing Lewis Dot Symbols

Element Symbol = the nucleus and ______ electrons
Surrounding Dots = the _____ electrons.



EXAMPLE: Draw the Lewis Dot Symbol for the following element: Te

- STEP 0: Identify if the element is a Main Group Element or Transition Metal.
- STEP 1: Place one valence electron at a time on the four sides of the element.
 - □ Start from the _____ of the element and move clockwise.
- STEP 2: Continue adding electrons, pairing them up until you have reached the appropriate number of valence electrons.
- **STEP 3:** If you are given an ion, place it in brackets and put its charge on the upper right corner.
 - □ For a cation, remove electrons.

□ For an anion, add electrons.

CONCEPT: LEWIS DOT SYMBOLS PRACTICE: Draw the Lewis Dot symbol for the following ion: Co+ PRACTICE: Draw the Lewis Dot symbol for the following ion: Cd2+

PRACTICE: Draw the electron-dot symbol for the following ion: P³–