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- An oxide ion ( $O^{2-}$ ) formed from an oxygen-18 atom contains exactly
    - 8 protons, 8 neutrons, 10 electrons
    - 8 protons, 10 neutrons, 8 electrons
    - 8 protons, 10 neutrons, 10 electrons
    - 10 protons, 8 neutrons, 8 electrons
  - Compared to a  $Be^{2+}$  ion, a  $Be^0$  atom has
    - more protons
    - fewer protons
    - more electrons
    - fewer electrons
  - When an atom loses an electron, the atom becomes an ion that is
    - positively charged and gains a small amount of mass
    - positively charged and loses a small amount of mass
    - negatively charged and gains a small amount of mass
    - negatively charged and loses a small amount of mass
  - When a lithium atom forms an  $Li^+$  ion, the lithium atom
    - gains a proton
    - gains an electron
    - loses a proton
    - loses an electron
  - How many electrons are in an  $Fe^{2+}$  ion
    - 24
    - 26
    - 28
    - 56
  - An atom of an element has a total of 12 electrons. An ion of the same element has a total of 10 electrons. Which statement describes the charge and radius of the ion?
    - The ion is positively charged and its radius is smaller than the radius of the atom.
    - The ion is positively charged and its radius is larger than the radius of the atom.
    - The ion is negatively charged and its radius is smaller than the radius of the atom
    - The ion is negatively charged and its radius is larger than the radius of the atom.
  - How many protons, neutrons, and electrons are found in  $Ca^{2+}$  with a mass number of 41?
    - $21p^+, 20n^0, 21e^-$
    - $20p^+, 21n^0, 18e^-$
    - $22p^+, 20n^0, 21e^-$
    - $20p^+, 21n^0, 22e^-$
  - How many protons, neutrons, and electrons are found in nitride ( $N^{3-}$ ) with a mass number of 15?
    - $15p^+, 3n^0, 15e^-$
    - $7p^+, 7n^0, 7e^-$
    - $7p^+, 8n^0, 10e^-$
    - $15p^+, 3n^0, 18e^-$
  - How many protons, neutrons, and electrons are found in a bromide ion ( $Br^-$ ) with a mass number of 72?
    - $35p^+, 37n^0, 36e^-$
    - $35p^+, 37n^0, 35e^-$
    - $34p^+, 36n^0, 35e^-$
    - $34p^+, 38n^0, 35e^-$
  - The total number of protons found in an  $OH^-$  ion is
    - 1
    - 8
    - 9
    - 17
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