

1 Atomic Structure

1.0.1 Atomic Number

1. The _____ is the number of _____ in the nucleus of an atom.

1.0.2 Mass Number

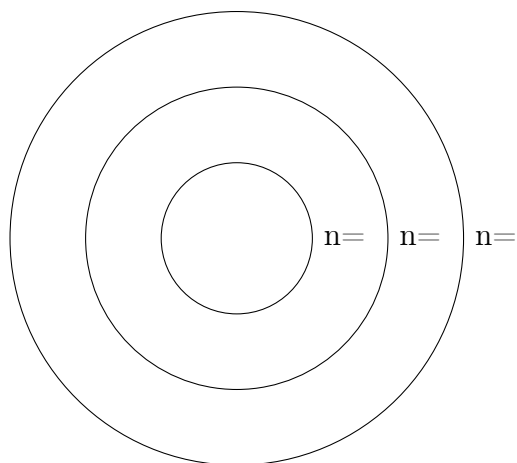
2. The _____ is the total number of _____ and _____ in the nucleus of an atom.
3. In this symbol for Hydrogen: ${}^1\text{H}$ What does the 1 mean? _____
4. In this symbol for Helium: ${}^4_2\text{He}$
- What does the 4 mean? _____
 - What does the 2 mean? _____
5. In this symbol for Lithium: ${}^7_3\text{Li}$
- How many protons does Lithium have? _____
 - How many neutrons does Lithium have? _____
6. based on this symbol: ${}^2\text{H}$
- How many protons does Hydrogen have? _____
 - How many neutrons? _____

1.1 Bohr Model

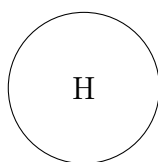
7. The Bohr Model - Bohr proposed that an atom was a nucleus with electrons "orbiting" in different _____.
8. Electrons can only have certain energy values known as _____

1.1.1 Energy Levels

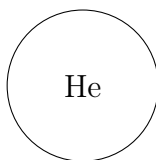
9. The electrons closest to the nucleus have the _____ energy, while those further from away have _____ energy.



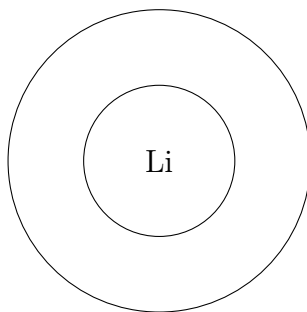
10. draw the electron configuration for H



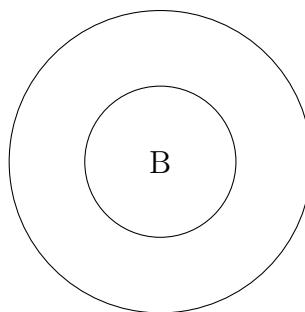
11. draw the electron configuration for He

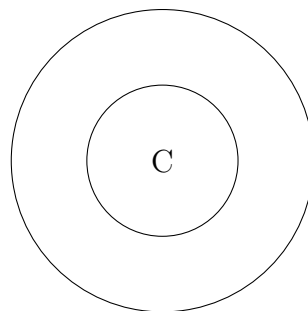


12. draw the electron configuration for Li

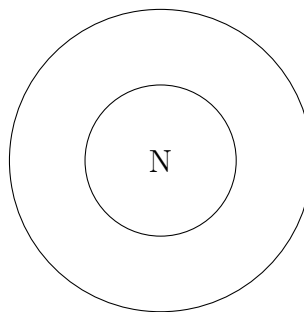


13. draw the electron configuration for Boron B

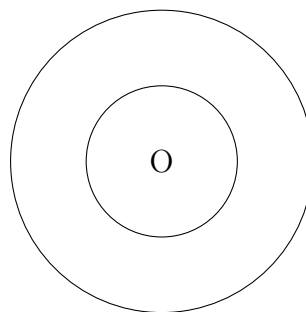




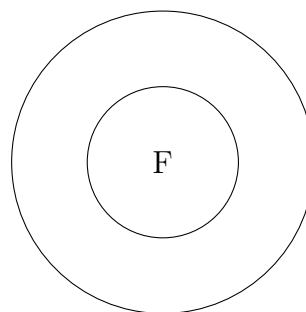
14. draw the electron configuration for Carbon C



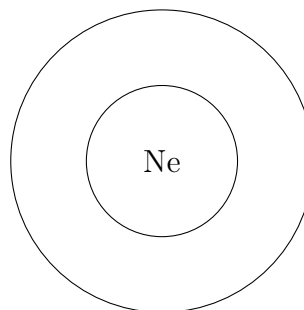
15. draw the electron configuration for Nitrogen N



16. draw the electron configuration for Oxygen O



17. draw the electron configuration for Fluorine F

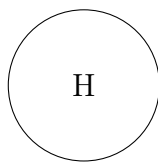


18. draw the electron configuration for Neon Ne

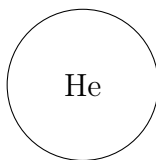
2 periodic table

19. The Periodic Table has ____ periods and ____ groups.
20. The periods are ____ and the groups are ____.
21. You can know the ____ configuration of an element from its ____ in the periodic table.
22. The number of electron ____ (or energy levels) is equal to the ____ number.
23. The number of valence electrons is related to the ____ number.
24. For atoms in groups ____ and ____ the number of ____ electrons are equal to the group number.
25. For atoms in groups ____ to ____ the number of ____ electrons are equal to the group number minus 10.

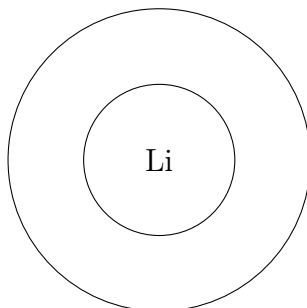
2.0.1 Practice



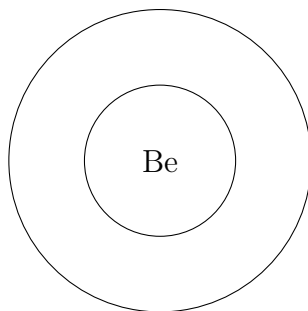
26. draw the electron configuration for H
How many valence electrons does it have? ____



27. draw the electron configuration for He
How many valence electrons does it have? ____

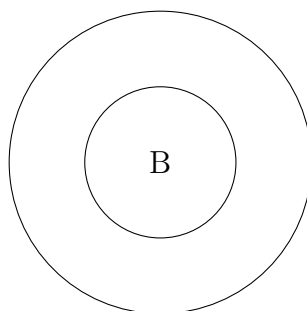


28. draw the electron configuration for Li
How many valence electrons does it have? ____



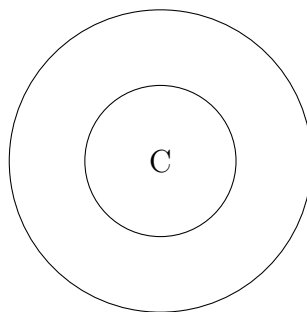
29. draw the electron configuration for Be

How many valence electrons does it have? _____



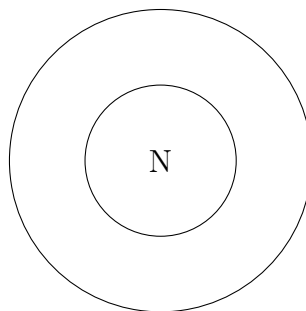
30. draw the electron configuration for Boron B

How many valence electrons does it have? _____



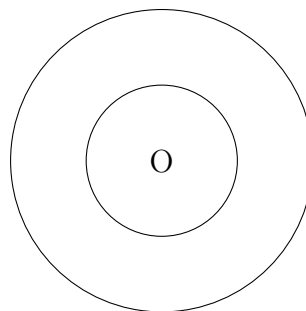
31. draw the electron configuration for Carbon C

How many valence electrons does it have? _____



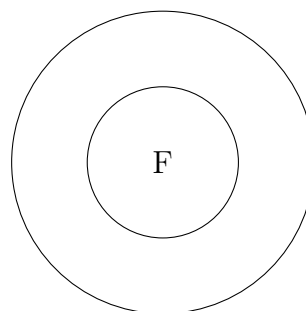
32. draw the electron configuration for Nitrogen N

How many valence electrons does it have? _____



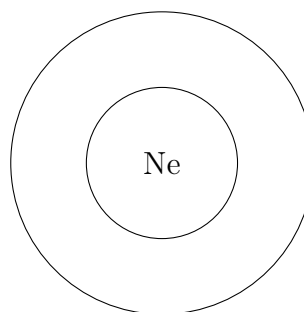
33. draw the electron configuration for Oxygen O

How many valence electrons does it have? _____



34. draw the electron configuration for Flourine F

How many valence electrons does it have? _____



35. draw the electron configuration for Neon Ne

How many valence electrons does it have? _____