

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.



What does the 1 mean? _____



4. What does the 4 mean?

5. What does the 2 mean?

6.



How many protons does Lithium have?

How many neutrons does Lithium have?

7.



based on this symbol, how many protons does Hydrogen have? _____

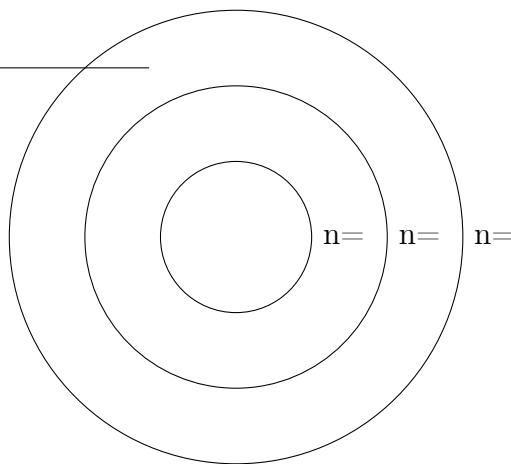
How many neutrons? _____

1.1 Bohr Model

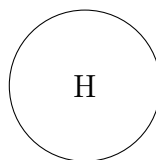
8. The Bohr Model - Bohr proposed that an atom was a nucleus with electrons "orbiting" in different _____.
9. Electrons can only have certain energy values known as _____

1.2 Energy Levels

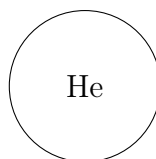
10. The electrons closest to the nucleus have the _____ energy, while those further from away have _____ energy.



11. draw the electron configuration for H

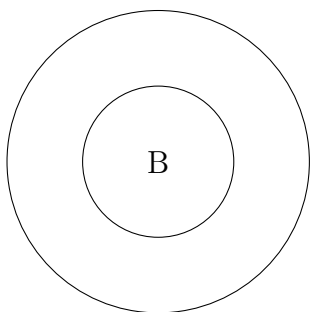


12. draw the electron configuration for He

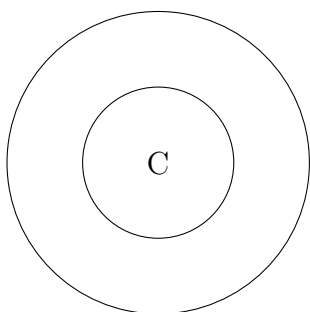


13. draw the electron configuration for Li

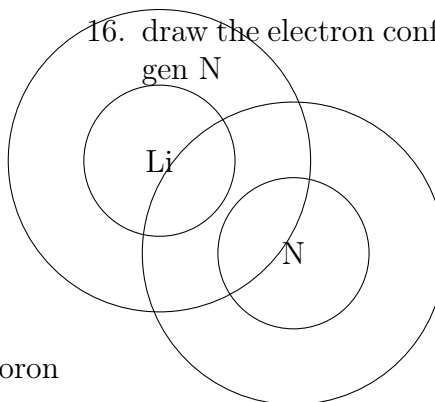
14. draw the electron configuration for Boron
B



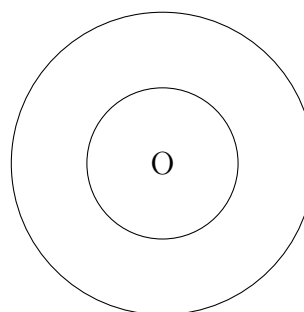
15. draw the electron configuration for Carbon C



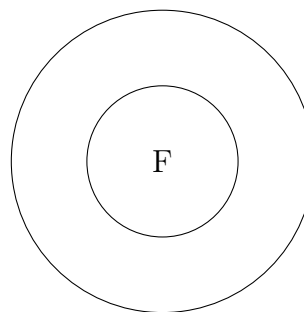
16. draw the electron configuration for Nitrogen N



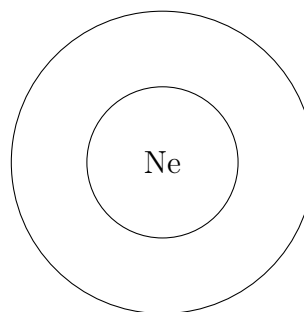
17. draw the electron configuration for Oxygen O




18. draw the electron configuration for Flourine F



19. draw the electron configuration for Neon Ne



28. draw the electron configuration for He

[illegible]

How many valence electrons does it have?

29. draw the electron configuration for Li

A diagram of a lithium atom (Li) showing a central nucleus labeled 'Li' and two concentric circles representing electron shells. A horizontal line is drawn below the inner circle.


How many valence electrons does it have?

30. draw the electron configuration for Be

A diagram of a Beryllium (Be) atom. It features a central nucleus labeled 'Be'. Surrounding the nucleus are two concentric circles representing electron shells. A small horizontal line segment is attached to the left side of the outer shell.

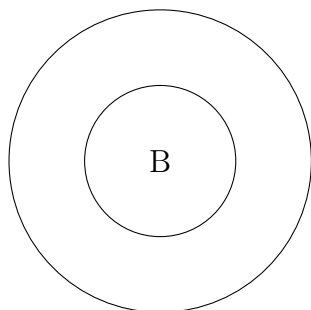
How many valence electrons does it have?

27. draw the electron configuration for H



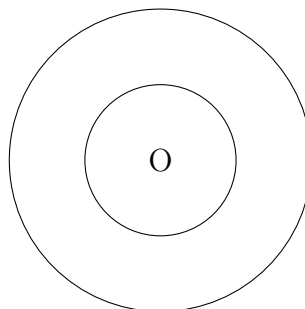
How many valence electrons does it have?

31. draw the electron configuration for Boron
B



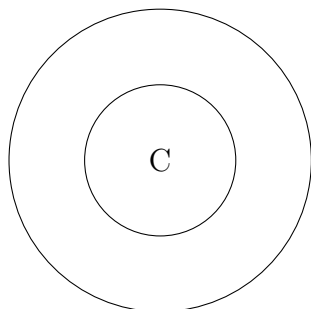
How many valence electrons does it have?

34. draw the electron configuration for Oxygen O



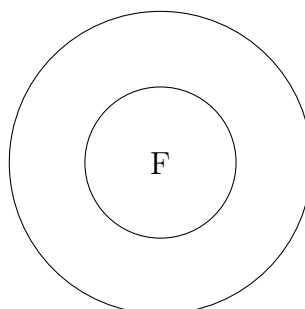
How many valence electrons does it have?

32. draw the electron configuration for Carbon C



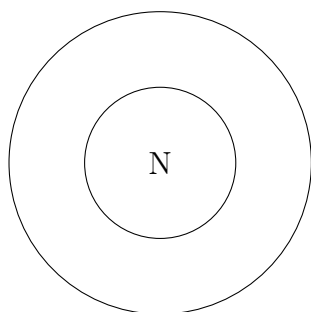
How many valence electrons does it have?

35. draw the electron configuration for Fluorine F



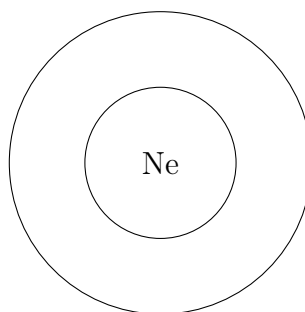
How many valence electrons does it have?

33. draw the electron configuration for Nitrogen N



How many valence electrons does it have?

36. draw the electron configuration for Neon Ne



How many valence electrons does it have?
