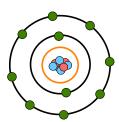
## **CONCEPT:** ELECTRONIC STRUCTURE: NUMBER OF ELECTRONS

## **Number of Electrons in Shells**

- Each shell for a given atom has a maximum number of electrons it can hold.
  - $\Box$  When only the shell number (*n*) is given: Number of electrons =



**EXAMPLE:** How many electrons can be found in the 7th shell of an atom?

a) 14

b) 28

c) 49

- d) 98
- e) 112

**PRACTICE:** Theoretically, how many total electrons can be found in the 6<sup>th</sup> shell of an atom?

a) 18

b) 72

c) 8

d) 32

PRACTICE: An element possesses 4 energy levels. How many total electrons can it theoretically hold?

a) 72

b) 100

c) 110

d) 60