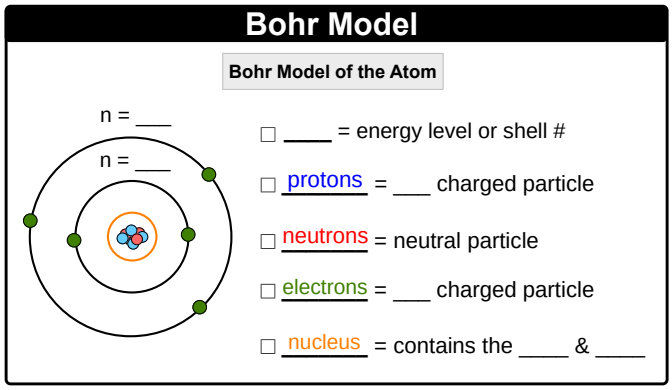
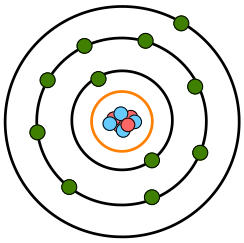
CONCEPT: BOHR MODEL (SIMPLIFIED)

- In the **Bohr Model** of the atom, electrons travel around the nucleus in circular orbits called *shells*.
  - □ **Shell** (__): A grouping of electrons surrounding the nucleus that ties into their *potential energy*.
  - □ **Potential Energy:** the energy an object possesses based on its given _____.



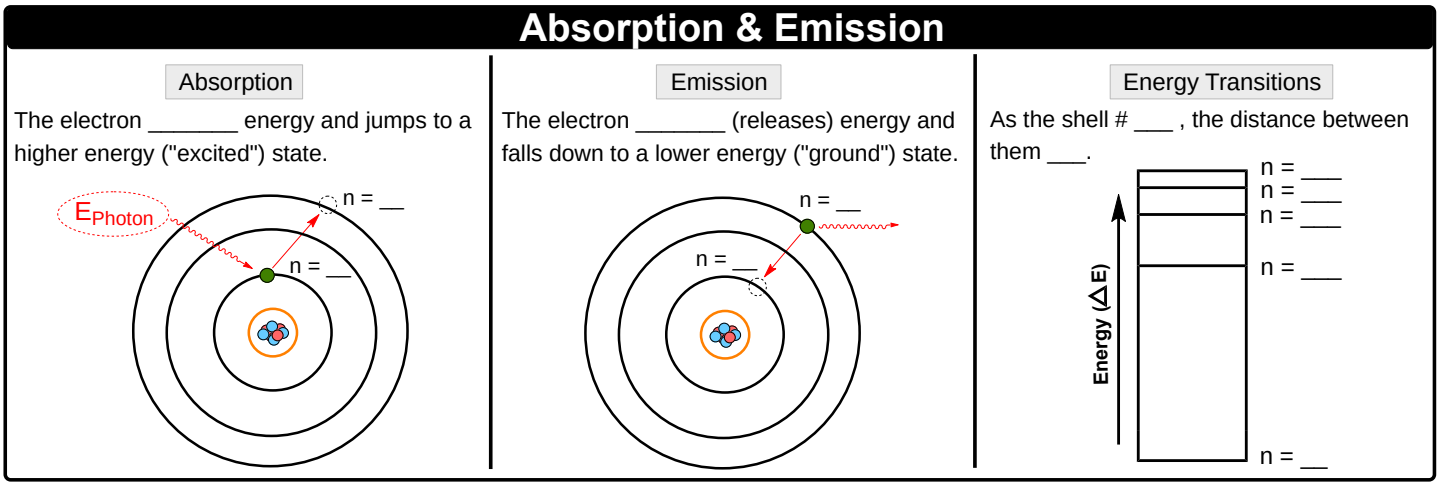
EXAMPLE: What is the value of *n* for the electron furthest from the nucleus?



a) n = 3 b) n = 5 c) n = 1 d) n = 2 e) n = 6

Absorption and Emission

- Through either the absorption or emission of energy, electrons are able to move between different shells.
  - □ **Absorption**: When an electron moves from a _____ numbered shell to a _____ numbered shell.
  - □ **Emission**: When an electron moves from a _____ numbered shell to a _____ numbered shell.



□ As the distance between shells _____ the amount of energy involved _____.

CONCEPT: BOHR MODEL (SIMPLIFIED)

PRACTICE: Which of the electron transitions represents an example of absorption?

a) n = 5 to n = 3 b) n = 1 to n = 3 c) n = 6 to n = 2 d) n = 7 to n = 4

PRACTICE: Which of the electron transitions represents an example of emission?

a) n = 2 to n = 4 b) n = 3 to n = 6 c) n = 3 to n = 1 d) n = 4 to n = 7

PRACTICE: Which of the electron transitions represents an example of absorption with the greatest energy?

a) n = 1 to n = 4 b) n = 2 to n = 3 c) n = 6 to n = 7 d) n = 5 to n = 6