

## Answer on Question #44775 - Chemistry - Other

### Question:

Number of orbitals associated with 3rd shell is?

### Solution:

Each shell (atomic energy level) is composed of one or more subshells, which are themselves composed of atomic orbitals.

The third shell has three subshells called 3s, 3p and 3d.

Each subshell consists of one or more atomic orbitals.

s-Subshell consists of **one orbital**,

p-subshell consists of **three orbitals**,

d-subshell consists of **five orbitals**.

Thus, total number of orbitals associated with 3rd shell is **nine** (1+3+5).

**Answer:** 9 orbitals.