

Quantum Number Energy Level Analysis

<https://gemini.google.com/app/a43b75813a569454>

Response: For the main energy level given by the principal quantum number $n = 3$:

- **Number of subshells:** Equal to $n = 3$ (these are the $3s$, $3p$, and $3d$ subshells).
- **Number of orbitals:** Given by $n^2 = 3^2 = 9$ (one s orbital, three p orbitals, and five d orbitals).
- **Maximum number of electrons:** Given by $2n^2 = 2(3^2) = 18$.

Therefore, the number of subshells, orbitals, and maximum electrons are **3, 9, and 18**, respectively.

Correct Option: 2. 3, 9 and 18
