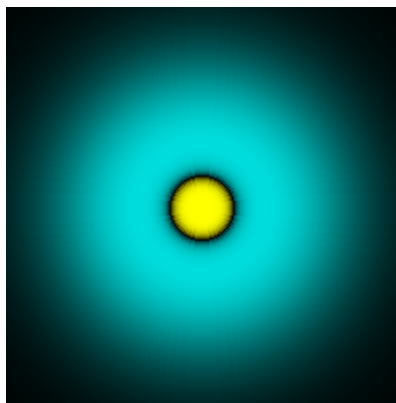
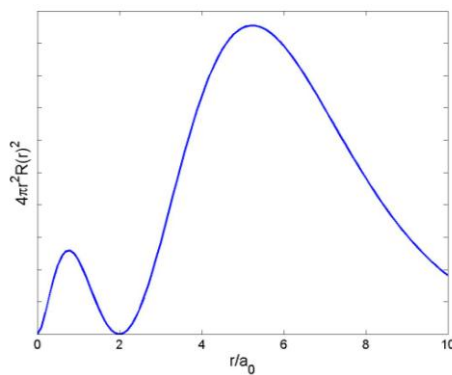
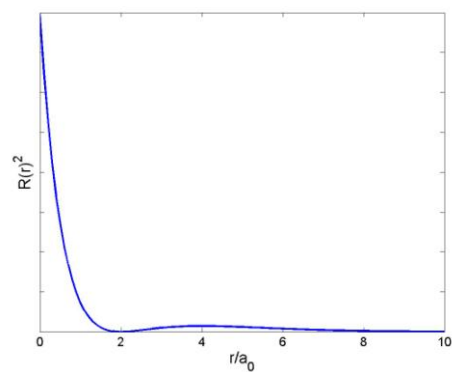
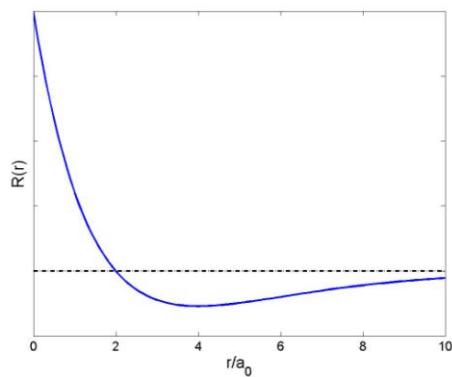


Working with Hydrogen Atom Orbitals – Solutions

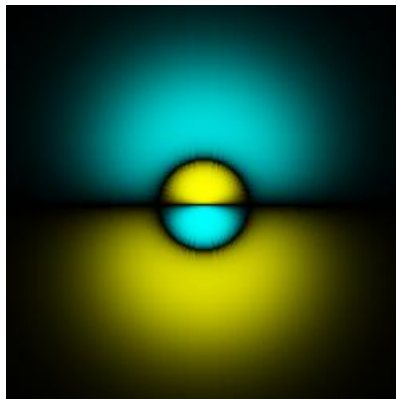
A.



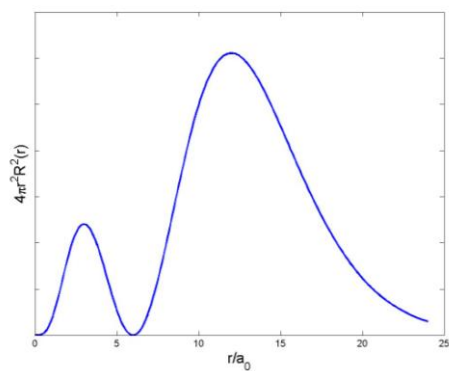
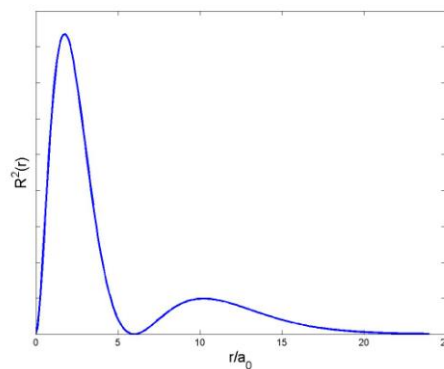
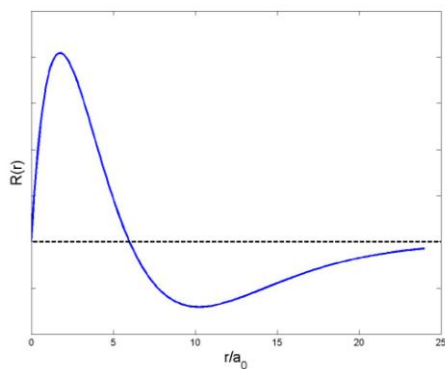
1. 2s
2. $n=2, l=0, m_l=0$
3. 1 radial node, 0 angular nodes
- 4.



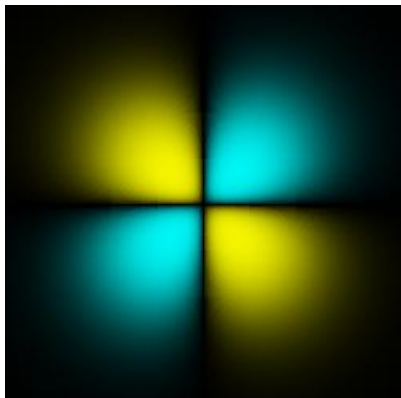
B.



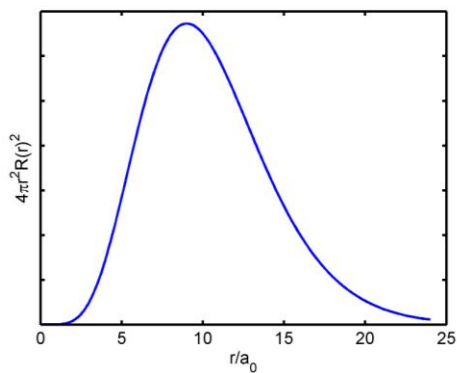
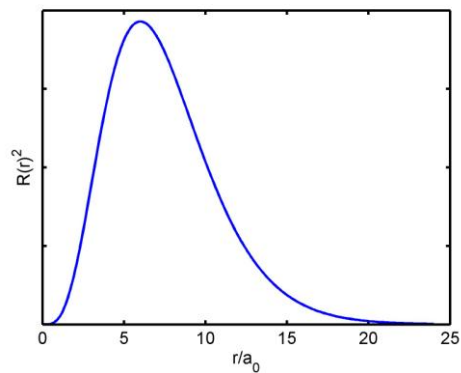
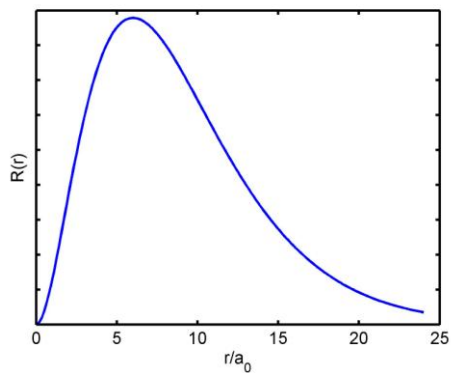
1. 3p_z
2. n=3, l=1, m_l=0
3. 1 radial node, 1 angular node
- 4.

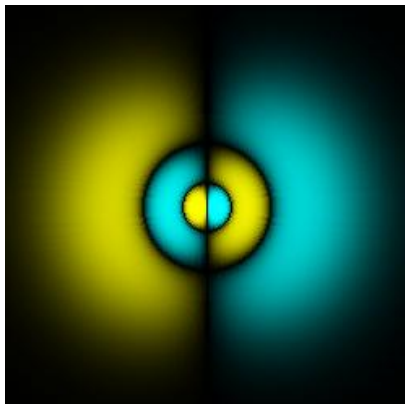


C.



1. $3d_{yz}$
2. $n=3, l=2, m_l$ cannot be specified
3. 0 radial nodes, 2 angular nodes
- 4.





1. $4p_y$
2. $n=4, l=1, m_l$ cannot be specified
3. 2 radial nodes, 1 angular node
- 4.

