

32. When a helium atom is in its ground state, both of its electrons are in the $1s$ state. Thus, for each of the electrons, $n = 1$, $l = 0$, and $m_l = 0$. One of the electrons is spin up ($m_s = +\frac{1}{2}$), while the other is spin down ($m_s = -\frac{1}{2}$).