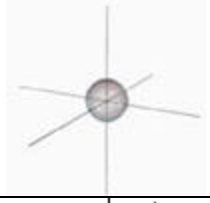
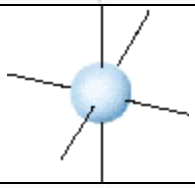
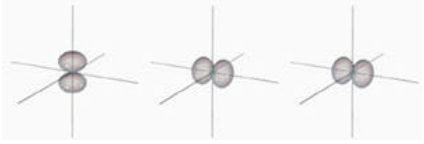
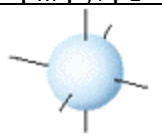
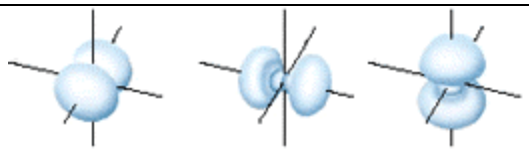
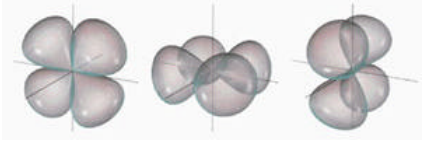
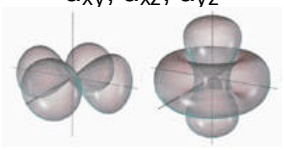
Wave functions (Ψ)

(Solutions to Schrödinger's Wave Equation)

Erwin Schrödinger developed an equation that represents the electron in an atom as a **matter-wave.** This equation has multiple solutions, known as "wave functions" (Ψ). These wave functions describe the *probability* of finding an electron in an atom.

n	# of Solution(s)	View	#	Label
n = 1	**1**		**1**	**1s**
n = 2	**4**		**1**	**2s**
		 p_x, p_y, p_z	**3**	**2p**
n = 3	**9**		**1**	**3s**
		 p_x, p_y, p_z	**3**	**3p**
		 d_{xy}, d_{xz}, d_{yz}  d_{x2-y2}, d_{z2}	**5**	**3d**
n = 4	_____		_____ _____ _____ _____	_____ _____ _____ _____