

Supplemental form QM001

It all about the "H" ...then the Ψ ...and the energy if free for the taking!

$$H\Psi = E\Psi$$

Complete the table below for each of the boundary conditions stated.

<i>Hamiltonian (useable form)</i>	<i>Wavefunction (normalized)</i>	<i>Quantized Energy</i>
<i>Translational (1D)</i>	$\Psi(x) =$	
<i>Translational (3D)</i>	$\Psi(x, y, z) =$	
<i>Vibrational</i>	$\Psi(x) =$	
<i>Rotational (2D)</i>	your answer will contain the term H,	
<i>Rotational (3D)*</i>	$\Psi(\theta, \phi) =$ Spherical harmonics (no need to answer further)	