This is a list of the basic rules ("postulates") of quantum mechanics.

The name 'postulates' is a bit misleading. Unlike a subject of pure mathematics, the rest of quantum mechanics does not follow logically from these few statements; a large amount of additional physical insights and interpretations are required.

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1. Any isolated physical system has a Hilbert space associated with it. Members of the Hilbert space represents possible states of the system.

   (The members of the Hilbert space are called wavevectors, state vectors or wavefunctions.)

2. Each physical observable corresponds to a linear, Hermitian operator.

   The eigenvectors/eigenfunctions of an operator form a complete basis, i.e., span the Hilbert space.

3. A measurement of observable Y necessarily yields one of the eigenvalues of the corresponding operator $\hat{Y}$.

   If $\hat{Y}\,|w_n\rangle = y_n\,|w_n\rangle$, possible measurement outcomes are y_n.

   If the system is in the state $|\psi\rangle$ when the measurement is performed, the probability of finding the outcome y_n is

$$p(y_n) \;=\; \Big|\langle w_n|\psi\rangle\Big|^2$$

4. If a measurement of Y yields eigenvalue y_i, then immediately after the measurement, the system is in the eigenstate $|w_j\rangle$ corresponding to the eigenvalue.

5. The time evolution of the state vector is determined by the TDSE:

$$i\hbar\frac{\partial}{\partial t}\,|\psi(t)\rangle \;=\; \hat{H}(t)\,|\psi(t)\rangle$$