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$$\langle x|\hat{X}|x'\rangle = x\delta(x - x') \qquad \langle x|\hat{P}|x'\rangle = x\delta'(x - x')$$

The operators corresponding to dependent variables $\omega(x, p)$ are given Hermitian operators $\Omega(\hat{X}, \hat{P}) = \omega(x \rightarrow \hat{X}, p \rightarrow \hat{P})$.

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4. The state vector $|\psi(t)\rangle$ obeys the Schroedinger equation

$$i\hbar\frac{d}{dt}\psi(t) = \hat{H}|\psi(t)\rangle$$

   where $\hat{H}(\hat{X}, \hat{P}) = \mathcal{H}(x \to \hat{X}, p \to \hat{P})$ is the quantum Hamiltonian operator and $\mathcal{H}$ is the corresponding classical problem.