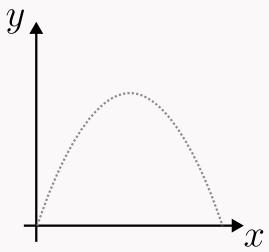
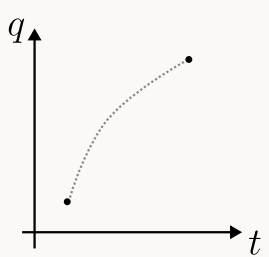
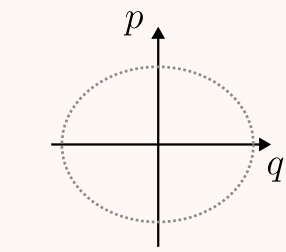
Dynamics

	Newtonian 1687 $\vec{F}$	Lagrangian 1788 $L = K - \Pi$	Hamiltonian 1833 $H = K + \Pi$
Description	$x_t\,(y_t, z_t)$	q_t	q_t, p_t
State	$\lvert\xi\rangle = (x, v)$	$\lvert\xi\rangle = (q, \nu)$	$\lvert\xi\rangle = (q, p)$
Driver	Force and inertia	Stationary Action Principle	Conservation of energy
Equation	Newton's second law $m\vec{a} = \vec{F}$	Euler-Lagrange Equations $\pi = \partial_\nu L \;\; \partial_t \pi = \partial_q L$	$J\partial_t \xi = \partial_\xi H$
Visualization			
	Trajectory in space	Path in configuration space	Trajectory in phase space