

Concept QID	Query Concept Name	MQA Calculation	MQA Relevant	WA Calculation	WA Relevant	G Box	G Calculation	G Relevant
Q11376	acceleration	yes	yes	yes	no	yes	no	yes
Q186300	angular acceleration	yes	yes	yes	no	no	no	yes
Q834020	angular frequency	yes	yes	yes	no	yes	no	yes
Q161254	angular momentum	yes	yes	yes	yes	yes	no	yes
Q161635	angular velocity	yes	yes	yes	yes	yes	no	yes
Q2945123	center of mass	no	no	no	no	no	no	no
Q2248131	centripetal acceleration	no	no	yes	yes	yes	no	yes
Q172881	centripetal force	no	no	yes	yes	yes	no	yes
Q843905	circumference	yes	yes	no	no	yes	yes	yes
Q11382	conservation of energy	no	no	no	no	yes	no	yes
Q2305665	conservation of momentum	no	no	no	no	yes	no	no
Q1127660	damping	no	no	no	no	no	no	no
Q272621	Dirac equation	yes	yes	no	yes	no	no	no
Q16853908	Dirac equation in curved spacetime	no	no	no	yes	no	no	no
Q891408	elastic energy	yes	yes	no	no	yes	no	yes
Q849919	electromagnetic force	yes	yes	no	no	no	no	yes
Q103438301	electrostatic force	no	no	no	no	no	no	yes
Q103439852	energy-momentum relation	no	no	no	no	no	no	no
Q166530	escape velocity	yes	yes	yes	yes	no	no	no
Q875744	Euler-Lagrange equation	no	no	no	no	no	no	no
Q11402	force	yes	yes	no	no	yes	no	yes
Q1068463	four-momentum	no	no	no	no	no	no	yes
Q1322540	four-velocity	yes	yes	no	no	no	no	no
Q140028	free fall	yes	yes	yes	yes	no	no	no
Q11652	frequency	yes	yes	no	no	yes	no	yes
Q82580	friction	yes	yes	no	no	yes	no	yes
Q219207	Galilean transformation	no	yes	no	yes	no	no	yes
Q6806305	generalized momentum	no	no	no	no	no	no	yes
Q30006	gravitational acceleration	yes	yes	yes	yes	yes	no	yes
Q11412	gravitational force	no	no	yes	yes	no	no	no
Q1544012	gravitational potential	yes	yes	no	no	yes	no	yes
Q660488	Hamiltonian operator	no	no	no	no	no	no	no
Q1060137	Hamilton-Jacobi equation	no	no	no	no	no	no	no
Q170282	Hooke's law	no	no	no	yes	yes	no	yes
Q497332	jerk	no	no	no	no	yes	no	yes
Q46276	kinetic energy	yes	yes	yes	yes	no	no	yes
Q103687426	Lagrangian operator	no	no	no	no	no	no	no
Q599404	Lorentz factor	yes	yes	yes	yes	yes	no	yes
Q172137	Lorentz force	yes	yes	yes	yes	yes	no	yes
Q217255	Lorentz transformation	yes	yes	no	yes	no	no	no
Q35875	mass-energy equivalence	no	no	yes	yes	yes	no	yes
Q6421317	mechanical impedance	yes	yes	no	no	no	no	yes
Q165618	moment of inertia	no	no	yes	yes	yes	no	yes
Q41273	momentum	yes	yes	yes	yes	yes	no	yes
Q2397319	Newton's second law of motion	no	no	no	yes	yes	no	yes
Q3235565	Newton's third law of motion	no	no	no	no	no	no	no
Q170475	oscillation	yes	yes	yes	yes	no	no	yes
Q20702	pendulum	no	yes	yes	yes	yes	no	yes
Q25342	power	no	no	yes	yes	yes	no	yes
Q240105	radial velocity	yes	yes	no	no	no	no	no
Q11663629	rest energy	no	no	no	no	no	no	yes
Q96941619	rest mass	no	no	no	no	no	no	no
Q676622	Rosby number	yes	yes	no	no	no	no	yes
Q3711325	speed	yes	yes	yes	yes	yes	no	yes
Q2111	speed of light	no	no	yes	no	no	no	no
Q12507	sphere	yes	yes	no	yes	no	no	no
Q3299367	spherical pendulum	yes	yes	no	yes	no	no	yes
Q824561	Stokes' law	no	no	yes	yes	yes	no	yes
Q206175	stress	no	no	yes	yes	no	no	yes
Q2822927	tangential acceleration	no	no	yes	no	no	no	no
Q103715245	tangential velocity	no	no	no	no	yes	no	yes
Q48103	torque	yes	yes	yes	yes	yes	no	yes
Q376742	uniform motion	no	no	yes	yes	no	no	yes
Q11465	velocity	yes	yes	yes	yes	yes	no	yes
Q192510	wavenumber	yes	yes	yes	no	yes	no	yes
Q42213	work	no	no	yes	yes	no	no	yes