

	Category	単語	Words	Definitions / descriptions
1	Mechanics	並進	translation	The movement of a body or system in such a way that all points are moved in parallel directions through equal distances.
2	Mechanics	運動方程式	an equation of motion	Equation that describes the motion or evolution of a system as a function of time.
3	Mechanics	位置	position	The location of an object relative to the origin of an arbitrary set of coordinates.
4	Mechanics	速度	velocity	The rate of change of position with time.
5	Mechanics	加速度	acceleration	The rate of change of velocity with time.
6	Mechanics	質量	mass	A measure of a body's inertia, i.e. its resistance to acceleration: $a = F/m$. Can also be defined in terms of the gravitational attraction between two bodies.
7	Mechanics	運動量	momentum (<i>pl.</i> momenta)	The product of the mass and the velocity of a particle.
8	Mechanics	角速度	angular velocity	The rate at which a body rotates about an axis.
9	Mechanics	慣性モーメント	moment of inertia	The resistance of an object to changes of its angular velocity.
10	Mechanics	角運動量	angular momentum	The product of the angular velocity of a body and its moment of inertia about the axis of rotation.
11	Mechanics	位置エネルギー	potential energy	The energy associated with the position of objects in a system.
12	Mechanics	運動エネルギー	kinetic energy	The energy associated with the motion of a system.
13	Mechanics	摩擦	friction	Force opposing the sliding of one surface over another.
14	Mechanics	重力	gravity	The attractive force between two bodies which is proportional to the product of their masses.
15	Mechanics	振動	oscillation	A regular movement between one position and another or between one amount and another.
16	Mechanics	調和振動子	a harmonic oscillator	An oscillator which has sinusoidal like motion.
17	Mechanics	共鳴	resonance	A condition in which a vibrating system responds with maximum amplitude to an alternating driving force, which occurs when the driving frequency coincides with the natural frequency of the system.
18	Mechanics	振幅	amplitude	The peak value of an alternating quantity in either the positive or negative direction.
19	Mechanics	位相	phase	The state of development of a periodic quantity, specifically the fraction of the whole period that has elapsed.
20	E&M	電荷	charge	A property of an elementary particle that determines the force it experiences in the presence of an electric or magnetic field. Usually measured in units of the magnitude of the negative charge of the electron, e .
21	E&M	引力	attractive force	e.g. The force between positive and negative charges is attractive.
22	E&M	斥力	repulsive force	e.g. The force between two positive or two negative charges is repulsive.
23	E&M	クーロン力	Coulomb force	The force between two charged particles.
24	E&M	周波数	frequency	The rate of repetition of a regular event, e.g. the number of cycles of an oscillation per second.
25	E&M	周期	period	The time it takes to complete one cycle of an oscillation.
26	E&M	電流	current	A flow of electric charge through a substance.
27	E&M	電圧	voltage	The difference in the electric potential between two points in a circuit that gives rise to a force on charged particles, thus inducing a current. The induced current is related to the resistance of the circuit through Ohm's law: $I = V/R$.
28	E&M	オシロスコープ	oscilloscope	An instrument used to provide a visual image of electrical signals, i.e. their amplitude and time evolution.
29	E&M	抵抗	resistance	A measure of a substances' opposition to the flow charge when a voltage (potential difference) is applied. It is related to the voltage and current via Ohm's law as $R = V/I$.
30	E&M	並列	in parallel	Two capacitors connected in this way give a total capacitance that is the sum of the two.
31	E&M	直列	in series	Two resistors connected in series give a total resistance that is the sum of the two.
32	E&M	エックス線回折	X-ray diffraction	The diffraction of X-rays by a crystal whose atomic separations are comparable in size to the wavelength of X-rays. (Diffraction is the spreading or bending of waves as they pass through an aperture (or series of apertures as in the case of the crystal) or round the edge of a barrier.)
33	E&M	反射	reflection	The return of all or part of a beam of particles or waves when it encounters a boundary between two media.
34	E&M	屈折率	index of refraction	The parameter that characterizes the change in direction of a wave when it enters another medium.
35	E&M	干渉	interference	The interaction between two or more wave motions affecting the same part of a medium such that the total disturbance is the vector sum of the disturbances resulting from each of the individual waves.