Unit (s)	Multiple	Symbol	Definition	Comparative examples & common units
10^{-44}	1 Planck time	t_P	The time required to travel one Planck length at the speed of light (c)	**10^{-20} ys** = **10^{-44} s**: One Planck time t_P = ≈ 5.4×10^{-44} s[2] is the briefest physically meaningful span of time. It is the unit of time in the natural units system known as Planck units.
10^{-24}	1 yoctosecond	ys[3]	**Yoctosecond**, (*yocto-* + *second*), is one septillionth of a second	**0.3 ys**: mean life of the W and Z bosons.[4][5][a] **0.5 ys**: time for top quark decay, according to the Standard Model. **1 ys**: time taken for a quark to emit a gluon. **23 ys**: half-life of ^{7}H.
10^{-21}	1 zeptosecond	zs	**Zeptosecond**, (*zepto-* + *second*), is one sextillionth of one second	**7 zs**: half-life of helium-9's outer neutron in the second nuclear halo. **17 zs**: approximate period of electromagnetic radiation at the boundary between gamma rays and X-rays. **300 zs**: approximate typical cycle time of X-rays, on the boundary between hard and soft X-rays. **500 zs**: current resolution of tools used to measure speed of chemical bonding[6] **850 zs**:The time it takes the electron to change its quantum state from the very constricted, bound state around the atom to a free state,[7] which is currently the quickest time ever observed.

10^{-18}	1 attosecond	as	One quintillionth of one second	**12 attoseconds**: best timing control of laser pulses.[8]
10^{-15}	1 femtosecond	fs	One quadrillionth of one second	**1 fs**: Cycle time for 300 nanometre light; ultraviolet light; light travels 0.3 micrometres (µm). **140 fs**: Electrons have localized onto individual bromine atoms 6Å apart after laser dissociation of Br_2.[9]
10^{-12}	1 picosecond	ps	One trillionth of one second	**1 ps**: half-life of a bottom quark; light travels 0.3 millimeters (mm) **1 ps**: lifetime of a transition state **4 ps**: Time to execute one machine cycle by an IBM Silicon-Germanium transistor
10^{-9}	1 nanosecond	ns	One billionth of one second	**1 ns**: Time to execute one machine cycle by a 1 GHz microprocessor **1 ns**: Light travels 30 centimetres (12 in)
10^{-6}	1 microsecond	µs	One millionth of one second	**1 µs**: Time to execute one machine cycle by an Intel 80186 microprocessor **4–16 µs**: Time to execute one machine cycle by a 1960s minicomputer

10^{-3}	1 millisecond	ms	One thousandth of one second	**1 ms**: time for a neuron in human brain to fire one impulse and return to rest[10] **4–8 ms**: typical seek time for a computer hard disk
10^{-2}	1 centisecond	cs	One hundredth of one second	**18–300 ms** (=0.02–0.3 s): Human reflex response to visual stimuli **20 ms**: cycle time for European 50 Hz AC electricity
10^{-1}	1 decisecond	ds	One tenth of a second	**100–400 ms** (=0.1–0.4 s): Blink of an eye[11] **150 ms**: recommended maximum time delay for telephone service **185 ms**: the duration of a full rotation of the main rotor on Bell 205, 212 and 412 helicopters (normal rotor speed is 324 RPM)
10^{0}	1 second	s	The duration of 9,192,631,770 periods of the radiation corresponding to the transition between the two hyperfine levels of the ground state of the caesium 133 atom.	**1 s**: 9,192,631,770 periods of the radiation corresponding to the transition between the two hyperfine levels of the ground state of the cesium-133 atom.[12] **6 s**: time it takes for a human to breathe
10^{1}	1 decasecond	das	Ten seconds	**19.54 s**: Half-life of Carbon-10 **40 s**: Time until cyanide starts acting **60 s**: 1 minute
10^{2}	1 hectosecond	hs	One hundred seconds	**494 s**: Time it takes for light to reach the sun **600 s**: Half-life of Neutronium

10^{3}	1 kilosecond (16.7 minutes)	ks	One thousand seconds	**3.6 ks**: 3600 s or 1 hour **86.4 ks**: 86 400 s or 1 day **604.8 ks**: 1 week
10^{6}	1 megasecond (11.6 days)	Ms	One million seconds	**2.6 Ms**: approximately 1 month **31.6 Ms**: approximately 1 year ≈ $10^{7.50}$ s
10^{9}	1 gigasecond (3.2 decades)	Gs	One billion seconds	**2.1 Gs**: average human life expectancy at birth (2011 estimate)[13] **3.16 Gs**: approximately 1 century **31.6 Gs**: approximately 1 millennium
10^{12}	1 terasecond (32 Millenniums)	Ts	One trillion seconds	**6 Ts**: Time since the appearance of *Homo sapiens* (approximately) **80 Ts**: Time it takes for light to travel from the Andromeda Galaxy to the Milky Way.[14] **160–220 Ts**: Time since the divergence of the human and chimpanzee lineages.[15]
10^{15}	1 petasecond (32 thousand Millen niums)	Ps	One quadrillion seconds	**2.1 Ps**: (66 million years) Time elapsed since the Cretaceous–Paleogene extinction event, during which all non-avian dinosaurs became extinct.[16] **7.1–7.9 Ps**: 1 galactic year (225-250 million years)[17] **143 Ps**: the age of the Earth[18][19][20] **144 Ps**: the approximate age of the Solar system[21] and the Sun.[22] **430 Ps**: the approximate age of the Universe **440 Ps**: the half-life of thorium 232

10^{18}	1 exasecond (32 million Millenniums)	Es	One quintillion seconds	**312 Es**: Estimated lifespan of a 0.1 solar mass red dwarf star.
10^{21}	1 zettasecond (32 billion Millenniums)	Zs	One sextillion seconds	**3 Zs**: Estimated duration of Stelliferous Era.
10^{24}	1 yottasecond (32 trillion Millenniums)	Ys	One septillion seconds	**1.6416 Ys**: Estimated half-life of the meta-stable $^{209}_{83}Bi$ radioactive isotope. **6.616×10^{50} Ys**: Time required for a 1 solar mass black hole to evaporate completely due to Hawking radiation, if nothing more falls in.