Modern metric system (SI) units

Some of the old pre-metric measures and old metric units still in use in the USA.

Almost all measurements in your life can be done with the metric units that will fit on the back of a business card:

1000 grams = 1 kilogram

1000 kilograms = 1 tonne

1000 millimetres = 1 metre

1000 metres = 1 kilometre

1000 millilitres = 1 litre

1000 litres = 1 cubic metre

1 metre x 1 metre = 1 square metre

1 metre x 1 metre x 1 metre = 1 cubic metre

The complete metric system will not fit on the back of a business card – the set shown is for a kitchen designer or for a homebuilder.

To use the metric system to measure everything – anywhere in the world in all crafts, trades, professions, and occupations – you will sometimes use these:

♦ 29 metric SI units:

- 7 base units: metre, kilogram, second, ampere, kelvin, mole, candela.
- 22 derived units with special names: becquerel, coulomb, degree Celsius, farad, gray, henry, hertz, joule, katal, lumen, lux, newton, ohm, pascal, radian, siemens, sievert, steradian, tesla, volt, watt, weber.

♦ 20 metric prefixes:

yocto, zepto, atto, femto, pico, nano, micro, milli, centi, deci, deca, hecto, kilo, mega, giga, tera, peta, exa, zetta, and yotta. This not a complete list — there are many others. acre (commercial) (36 000 ft²), acre (US survey) (43 560 ft²), acre (US international foot) (43 560 ft²), acre foot (43 560 ft³), acre foot per day, acre foot per year, acre inch (3630 ft³), agate (1/14 inch), arc second, atmosphere, atmosphere (standard), bag (1/6 US dry bbl), bag (3 UK bushells), barrevcorn, barrel (oil), barrel (petroleum), barrel (US cranberry), barrel (US dry), barrel (US federal proof spirits), barrel (US federal), barrel (US liquid), bbl, bbl (US fed), board foot, bottle (spirits), bottle (wine), British thermal unit, British thermal unit (32 °F), British thermal unit (68 °F), British thermal unit (98 °F), British thermal unit (International steam table), British thermal unit (International), British thermal unit (IT), British thermal unit (mean), British thermal unit (thermochemical). BThU. BTU. Btu (International table). Btu (mean). Btu (th). Btu/hour. bushel (barley) (USDA), bushel (oats) (USDA), bushel (rye) (USDA), bushel (shelled corn) (USDA), bushel (soybeans), bushel (US volume), bushel (wheat), bushel potatoes (USDA), cable (US), cal (15 °C), cal (20 °C), cal (4 °C), cal (IT), cal (mean), cal (th), caliber (US), calibre (UK), calorie, Calorie, calorie (16 °C), calorie (20 °C), calorie (4 °C), calorie (International Table), calorie (mean), calorie (thermochemical), calorie per hour, candle, candlepower, candlepower (mean horizontal), candlepower (mean spherical), carat, centigrade, centigrade heat units, centipoise, century, chain, (US statute), chain (US survey), charge unit, children's shoe sizes (US), circular mil per foot, cord, cord foot, cubic foot per hour, cubic foot per minute. cubic foot per second, cubic inch, cubic inch per minute, cubic inch per second, cubic mile, cubic vard, cubit, cup (UK), cup (US), curie, cusec, day (civil), day (sidereal), day (solar), decade, degree (arc degree), degrees Ammoniameter, degrees API, degrees Bark, degrees Baumé (heavy), degrees Baumé (light), degrees Beck, degrees Brix, degrees Fahrenheit, degrees oleometer, degrees Rankine, degrees Soxhlet, degrees Twaddel, denier, Dobson unit, dram (apothecaries), dram (avoirdupois), drex, drill numbers, drop, drum (44 UK gallons), drum (55 US gallons), dvne, Einstein unit, electron rest mass, elite (US printers), ell (UK), em, en, erg, exposure value, Fahrenheit, fathom, feet (air), feet (board), feet (water), flask (mercury), flat (strawberries), foot (International), foot (metric), foot (statute), foot (survey), foot (water 39.2 °F), foot candle, foot per hour, foot per minute, foot per second, foot pound, foot poundal, foot pounds-force, foot ton, foot-candle (apparent), foot-lambert, furlong, gal, gallon, gallon (US liquid), gallon (US) per day, gallon (US) per day per square foot, gallon (US) per hour, gallon (US) per minute, gallon (US) per second, gauge (screw), gauge (USS standard plate), gauge (vinyl), gauge (Washburn & Moen), g-pounds, grain, grains per gallon, gross, hand, hide, horsepower, horsepower (mechanical), horsepower hour, horsepower year, hour (civil), hour (sidereal), hour (solar), hour of right ascension, hundredweight, hundredweight (long), hundredweight (net), hundredweight (short), inch, inch (circular), inch (Enfield), inch (International), inch (mercury), inch (metric), inch (UK Imperial), inch (US statute), inch (US survey), inch (water), inch per minute, inch per second, inch-pound, jigger (US), keg (US large beer), keg (US small beer), kilocalories, kilocalories per hour, kiloppound-force, kilowatt hours, kip, kip foot, kip per square inch, lambert, langley, lb, lbf, league, light minute, light second, light year, link, link (US statute), link (US survey), lumerg, Mach number, magnitude (apparent stellar), magnum, megaton, men's shoe sizes (US), mho, microinch, micron, mig, mil, mil (angular), mil (milliinch), mil circular, mile, mile (International), mile (US statute), mile (US survey), mile per hour, mile per hour per second, mile per minute, mile per second, miles per gallon, miles per hour. millennium, millibar, millimetres of mercury, millimetres of water, miner's inch (AZ), miner's inch (CO), miner's inch (ID), minim (US), minute (sidereal), minute (solar), minute of arc (arc minute), minute of right ascension, month (mean calendar), month (sidereal), month (synodic or lunar), nail penny, nautical mile (radar), nit, noy, oersted, ounce, ounce (avoirdupois), ounce (troy), ounce fluid, ounce fluid (US), ounce-force, ounce-force inch, ounce-force per square inch, ounces per inch, pace (geometrical), pace (military), parsec, parts per billion, parts per million, parts per trillion, peck (US drv), pennyweight (trov). perch, phon, phot, pica, pica (US computers), pica (US printers), pint, pint (US dry), pint (US liquid), point (compass), point (jewellers), point (US computers), point (US printers), pole, pound, pound (avoirdupois), pound (basis weight of bond paper), pound (basis weight of book paper), pound (basis weight of cover paper), pound (basis weight of newsprint), poundal, poundals per square foot, pound-force pound-force foot, pound-force inch, pound-force per square foot, pound-force per square inch, pounds per foot, pounds-force, ppb, ppm, ppt, quad, quart, quart (US dry), quart (US liquid), Q-unit, rad, range, Rankine, Reaumur, rem. revolution, revolution per minute, revolution per second, revn. rod. rod (US statute), rod (US survey). roentgen, rood, sack (1/6 US dry bbl), screw number, second (redwood), second (saybolt), second (sidereal), second of arc, second of right ascension, shot, shotgun gauge, slug, slug (g-pound), solar luminosities, sone, speed of light, square (flooring), square (roofing), square (timber), square degree, square foot, square inch, square mil, square mile (International), square mile (statute), square mile (survey), square yard, standard cubic foot (natural gas), stone, tablespoon (International), tablespoon (UK), tablespoon (US), teaspoon (International), teaspoon (UK), teaspoon (US), tex, therm, thou, thou (thousand acre feet), thou (thousand board feet), ton, ton (assay), ton (freight), ton (long), ton (metric), ton (net), ton (nuclear devices), ton (register), ton (short), ton (US commercial refrigeration), ton (US standard refrigeration), ton mile (ton-force mile), ton of

coal equivalent, ton of oil equivalent, ton-force ton-force foot, tons per acre, tons per mile, township, watt hour, week

(calendar), week (work), wire gauge (Birmingham), wire gauge (AWG), wire gauge (Brown & Sharpe), wire gauge (SWG), women's shoe sizes (US), yard, yard (International), yard (metric), yard (US statute), yard (US survey), yards per hour, year

(anomalistic), year (astronomical), year (common calendar 365 d), year (leap calendar 366 d), year (lunar), etc. etc. etc., ...