Converting between metric and customary units worksheet

Converting lengths between customary and metric units

Grade 5 Measurement Worksheet

Convert these lengths to the metric units shown.

1. 80 in = _____ mm
2. 54 yd = _____ m
3. 84 ft = _____ m
4. 27 ft = _____ m
5. 60 ft = _____ cm
6. 18 ft = _____ m
7. 91 in = _____ cm
8. 97 ft = _____ cm
9. 16 in = _____ mm
10. 46 in = _____ cm

Convert these lengths to the customary units shown.

11. 75 cm = _____ in
12. 92 mm = _____ ft
13. 23 cm = _____ ft
14. 65 m = _____ ft
15. 58 mm = _____ in
16. 36 mm = _____ yd
17. 29 mm = _____ ft
18. 24 m = _____ yd
19. 90 m = _____ yd
20. 90 cm = _____ yd

Name _____ Score _____

Metric Unit Conversion - Capacity

Convert :

1) 487 cL = _____ mL	2) 92.35 L = _____ cL
3) 71.9 cL = _____ dL	4) 33.32 hL = _____ kL
5) 285 dL = _____ L	6) 5.57 L = _____ daL
7) 57.38 dL = _____ mL	8) 894 kL = _____ hL
9) 68.201 daL = _____ dL	10) 7100 cL = _____ L
11) 193.3 L = _____ dL	12) 880 daL = _____ hL
13) 63.71 kL = _____ daL	14) 91.55 hL = _____ L
15) 1722 dL = _____ L	16) 4203 L = _____ kL

Name : _____ Score : _____

U.S. Customary Unit Conversion - Capacity

Measures of Capacity

1 tablespoon = 3 teaspoons
1 fluid ounce = 2 tablespoons
1 cup = 8 fluid ounces

Convert.

1) 4 cups = _____ fluid ounces	2) 11 fluid ounces = _____ tablespoons
3) 15 tablespoons = _____ teaspoons	4) 88 fluid ounces = _____ cups
5) 38 tablespoons = _____ fluid ounces	6) 9 teaspoons = _____ tablespoons

Compare the measures of capacity and fill in the box with appropriate symbol <, > or = in each problem.

7) 34 tablespoons ☐ 13 fluid ounces	8) 13 cups ☐ 104 fluid ounces
9) 40 fluid ounces ☐ 6 cups	10) 156 teaspoons ☐ 51 tablespoons
11) 14 fluid ounces ☐ 28 tablespoons	12) 21 tablespoons ☐ 66 teaspoons

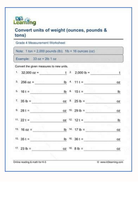
Metric units of weight

Grade 5 Measurement Worksheet

1 kilogram (kg) = 1,000 grams (gm)

Convert to the units shown.

1. 0.06 kg = _____ g
2. 8.3 kg = _____ g
3. 0.49 kg = _____ g
4. 0.2 kg = _____ g
5. 23 g = _____ kg
6. 7.4 g = _____ kg
7. 0.07 kg = _____ g
8. 5.5 kg = _____ g
9. 80 kg = _____ g
10. 4.6 g = _____ kg
11. 4.9 g = _____ kg
12. 0.78 kg = _____ g
13. 2 kg = _____ g
14. 0.32 kg = _____ g
15. 8 kg = _____ g
16. 61 kg = _____ g
17. 5 g = _____ kg
18. 0.04 g = _____ kg
19. 0.37 kg = _____ g
20. 0.3 g = _____ kg



How to convert unit of measurement in metric and english system. How to convert customary units.

You are here: Home → Worksheets → Metric measuring Create an unlimited supply of worksheets for conversion of metric measuring units for grades 2-7. The worksheets can be made in html or PDF format – both are easy to print. You can also customize them using the generator below. Conversions between measuring units are studied all through elementary school. Starting typically in grade 2 or 3, children practice easy conversions, such as changing a bigger unit into smaller units (4 cm into 40 mm) and the other way around (300 cm = 3 m). Later on they learn how to use decimal numbers in the conversions. Since the metric system is based on number 10, conversions between the units are very easy: they only involve multiplying and dividing by 10, 100, 1000, etc. On this page you will find metric unit worksheets for: Grades 2-3 Grade 4 Grade 5 Grades 6-7 Metric units formed with prefixes Basic instructions for the worksheets Each worksheet is randomly generated and thus unique. The answer key is automatically generated and is placed on the second page of the file. You can generate the worksheets either in html or PDF format — both are easy to print. To get the PDF worksheet, simply push the button titled "Create PDF" or "Make PDF worksheet". To get the worksheet in html format, push the button "View in browser" or "Make html worksheet". This has the advantage that you can save the worksheet directly from your browser (choose File → Save) and then edit it in Word or other word processing program. Sometimes the generated worksheet is not exactly what you want. Just try again! To get a different worksheet using the same options: PDF format: come back to this page and push the button again. Html format: simply refresh the worksheet page in your browser window. The conversions in the worksheet below are easy, as they only involve converting a larger unit into smaller units (such as 3 m = _____ cm) or writing a multiple of ten of the smaller unit in terms of the larger unit (such as 50 mm = ___ cm). Whole centimeters and millimeters(3 cm = ____ mm or 70 mm = ___ cm) View in browser Create PDF Whole meters and centimeters(3 m = ____ cm or 500 cm = ___ m) View in browser Create PDF Whole kilometers and meters(7 km = ____ m or 1,000 m = ___ km) View in browser Create PDF Kilometers, meters, and centimeters(3 km = ____ m or 100 cm = ___ m) View in browser Create PDF Meters, centimeters, and millimeters(3 m = ____ cm or 40 mm = ___ cm) View in browser Create PDF Whole kilograms and grams(8 kg = ____ g or 9,000 g = ___ kg) View in browser Create PDF Whole liters and milliliters(6 L = ____ ml or 6,000 ml = ___ L) View in browser Create PDF Mixed practice of all metric units in this section (mm, cm, m, kg, g, L, ml) View in browser Create PDF Grade 4 Convert between centimeters and millimeters (3 cm 4 mm = ____ mmor 72 mm = ___ cm ___ mm) View in browser Create PDF Convert between meters and centimeters (3 m 24 cm = ____ cmor 748 cm = ___ m ___ cm) View in browser Create PDF Meters, centimeters, and millimeters(3 m 4 cm = ____ cmor 72 mm = ___ cm ___ mm) View in browser Create PDF Convert between kilograms and grams(4 kg 900 g = ____ gor 2,490 g = ___ kg ___ g) View in browser Create PDF Convert between liters and milliliters(6 L 250 ml = ____ mlor 2,439 ml = ___ L ___ ml) View in browser Create PDF Mixed practice of all metric units in this section (mm, cm, m, kg, g, L, ml) View in browser Create PDF Mixed practice – easy(mm, cm, m, km) View in browser Create PDF Mixed practice – easy(mm, cm, m, km, kg, g, L, ml) View in browser Create PDF Grade 5 In grade 5, students use decimal numbers with the units of measurement. They convert for example 2.8 km into 2,800 m or 165 ml into 0.165 L. Grades 6-7 In grades 6 and 7, students continue working with decimal numbers in the conversions. They also study the various units formed with prefixes at least from milli to kilo, such as millimeter, centimeter, decimeter, meter, dekameter, hectometer, and kilometer. The metric system: units with prefixes The worksheet below involve converting between a range of metric units with prefixes milli-, centi-, deci-, (basic unit), deka-, hecto-, and kilo-. Metric system: convert between the units of length (mm, cm, dm, m, dam, hm, km) View in browser Create PDF Metric system: convert between the units of weight (mg, cg, dg, g, dag, hg, kg) View in browser Create PDF Metric system: convert between the units of volume (ml, cl, dl, L, dal, hl, kl) View in browser Create PDF Metric system: convert between the units of length, weight, and volume View in browser Create PDF Use the generator to make customized worksheets for conversions between measuring units. You can choose to include inches, feet, yards, miles, ounces, cups, pints, quarts, gallons, ounces, pounds, millimeters, centimeters, meters, kilometers, grams, kilograms, liters, and milliliters. You can also make worksheets for the metric system: units with the prefixes milli, centi, deci, deka, hecto, and kilo. Measuring Units Worksheets Level of difficulty: 1 (e.g. 2 ft = ____ in or 5 L = ____ ml) 2 (e.g. 25 in = _____ ft _____ in) 3 (e.g. 218 in = _____ ft _____ in) 4 (always using decimals, e.g. 5.77 ft = _____ in or 9.32 m = _____ cm) The levels of difficulty work a little differently depending on whether you choose individual units or conversions between all metric units. Please check what their effect are by making a worksheet, and then come back to this page by using the 'back' button on your browser. Decimal digits: Maximum number of decimals used for the smaller unit: 0 1 2 3 4 5 6 Maximum number of decimals used for the larger unit: 0 1 2 3 4 5 6 Round answers to 0 1 2 3 4 5 6 digits Again, the decimal digits work a little differently depending on the level of difficulty and type of conversions chosen. Some difficulty levels for certain type of conversions will not accept decimal digits at all. Please check what their effect are by making a worksheet, and then come back to this page by using the 'back' button on your browser. Conversions between individual units - check any number of these: Conversions in the metric system - check any of these: km, hm, dam, m, dm, cm, mm kg, hg, dag, g, dg, cg, mg kl, hl, dal, L, dl, cl, ml Page orientation:Portrait Landscape (PDF worksheet only) Font: Arial Courier Courier New Helvetica sans-serif Times New Roman Verdana Font Size: 8pt 9pt 10pt 11pt 12pt 13pt 14pt 16pt 18pt 24pt Cell Padding: Border: Extra vertical space below the problems: lines Additional title & instructions (HTML allowed) Key to Measurement workbooks include a variety of hands-on experiences related to the customary units of measurement. Group projects are included in addition to numerous individual activities. In Book 1, students learn how a linear measurement system is developed and then do activities related to measuring length. Book 2 focuses on length, perimeter, and area measures. In Book 3, the concept of area is further developed, and students are introduced to volume. Book 4 covers a variety of topics. Students experiment with weighing objects and measuring capacity, and they also learn about temperature and time. => Learn more The metric system is a framework of units of measurement that has grown from its 1874 birth in a diplomatic treaty to the more modern General Conference on Weights and Measures, or CGPM (Conferérence Générale des Poids et Measures). The modern system is properly called the International System of Units, or SI, an abbreviation from the French Le Système International d'Unités. Today, most people use the names metric and SI interchangeably. The metric system is the main system of measurement units used in science. Each unit is considered to be dimensionally independent of the others. These dimensions are measurements of length, mass, time, electric current, temperature, amount of a substance, and luminous intensity. Here are definitions of the seven base units: Length: Meter (m) The meter is the metric unit of length. It's defined as the length of the path light travels in a vacuum during 1/299,792,458 of a second. Mass: Kilogram (kg) The kilogram is the metric unit of mass. It's the mass of the international prototype of the kilogram: a standard platinum/iridium 1 kg mass housed near Paris at the International Bureau of Weights and Measures (BIPM). Time: Second (s) The basic unit of time is the second. The second is defined as the duration of 9,192,631,770 oscillations of radiation corresponding to the transition between the two hyperfine levels of cesium-133. Electric current: Ampere (A) The basic unit of electric current is the ampere. The ampere is defined as the constant current that, if maintained in two infinitely long straight parallel conductors with a negligible circular cross-section and placed 1 m apart in a vacuum, would produce a force between the conductors equal to 2 x 10-7 newtons per meter of length. Temperature: Kelvin (K) The Kelvin is the unit of thermodynamic temperature. It is the fraction 1/273.16 of the thermodynamic temperature of the triple point of water. The Kelvin scale is an absolute scale, so there is no degree. Amount of a Substance: Mole (mol) The mole is defined as the amount of a substance that contains as many entities as there are atoms in 0.012 kilograms of carbon-12. When the mole unit is used, the entities must be specified. For example, the entities may be atoms, molecules, ions, electrons, cows, houses, or anything else. Luminous Intensity: candela (cd) The unit of luminous intensity, or light, is the candela. The candela is the luminous intensity, in a given direction, of a source emitting monochromatic radiation of frequency 540 x 1012 hertz with radiant intensity in that direction of 1/683 watt per steradian. These definitions are actually methods to realize the unit. Each realization was created with a unique, sound theoretical base to generate reproducible and accurate results. In addition to the seven base units, other metric units are commonly used: Liter (L) While the metric unit of volume is the cubic meter, m3, the most commonly used unit is the liter. A liter is equal in volume to one cubic decimeter, dm 3, which is a cube that is 0.1 m on each side. Angstrom (Å) One angstrom equals 10-8 cm or 10-10 m. Named for Anders Jonas Ångstrom, the unit is used to measure the chemical bond length and electromagnetic radiation wavelength. Cubic centimeter (cm3) A cubic centimeter is a common unit used to measure solid volume. The corresponding unit for liquid volume is the milliliter (mL), which is equal to one cubic centimeter.