

Conversions using the Metric System Practice Problems Solutions

1) The weight of a flash drive is 3 grams. Convert the measurement to centigrams.

Solution 300 cg

2) The distance between Cell Phone Company A and B is 87 m. Convert the measurement to cm.

Solution 8,700 cm

3) 76.2 m of — CL2 in-wall speaker cable was installed in an office for background music.

A) Calculate that length in decameters.

Solution 7.62 decameters

B) Calculate that length in centimeters

Solution 7,620 centimeters

4) A wireless router supports a range of up to 4,572 cm indoors.

A) Calculate that length in meters.

Solution 45.72 meters

B) Calculate that length in kilometers.

Solution 0.04572 kilometers

5) When storing and stacking laptop computers you need to take into account the mass of the object. A typical laptop computer has a mass of about 4 kg.

A) Calculate that mass in grams.

Solution 4,000 grams

B) Calculate that mass in milligrams.

Solution 4,000,000 milligrams

6) According to specifications the voltage drop for any wire within office cannot exceed 1 Volt. A typical 10 AWG copper wire can only be run 152.4 m before a voltage drop of 1 volt occurs.

A) Calculate that length in hectometers.

Solution 1.524 hectometers

B) Calculate that length in decimeters.

Solution 1,524 decimeters

Convert 411 kg to g

Solution 411,000 g

Convert 5.626 l to cl

Solution 562.6 cL

Convert 80 ml to kl.

Solution 0.00008 kL

Convert 2.5 cm to m.

Solution 0.025 m

Convert 16,005 mg to g

Solution 16.005 g

Convert 48.66 L to daL

Solution 4.866 daL

Convert 11.161 kL to L

Solution 11,161 L

Convert 521.85 cm to mm

Solution 5,218.5 mm

Convert 1.26 dag to dg

Solution 126 dg

Convert 99.04 dam to cm

Solution 99,040 cm

Convert 0.51 kL to daL

Solution 51 daL

Convert 0.05 m to dm

Solution 0.5 dm

Convert 0.001 km to mm

Solution 1,000 mm

Convert 8.106 hg to cg

Solution 81,060 cg

Convert 17.0186 kL to mL

Solution 17,018,600 mL

Convert 3 cm to m

Solution 0.03 m

Convert 9 mm to m

Solution .009 m

Convert 4 g to mg

Solution 4,000 mg

Convert 2 L to kL

Solution .002 kL

Convert 6 kg to mg

Solution 6,000,000 mg

Resources:

Measurement and Geometry: Area and Volume of Geometric Figures and Objects by Ellis, W., & Burzynski, D. © 2010 retrieved from <http://cnx.org/content/m35023/1.2/> and used under a Creative Commons Attribution <http://creativecommons.org/licenses/by/3.0/>. This is an adaption of the lesson titled, *Metric Measurement*, by the National Information Security and Geospatial Technologies Consortium (NISGTC) is licensed under the Creative Commons Attribution 3.0 Unported License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-sa/3.0/>.

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