

Conversion factors

1 kilometer = 1000 meters
 1 hectometer (hm) = 100 meters
 1 dekameter (dam) = 10 meters

1 meter = 10 decimeters (dm)
 1 meter = 100 centimeters (cm)
 1 meter = 1000 millimeters (mm)

In the metric system you can use unit fractions or just move the decimal point. The chart below shows how many places to move the decimal point and which direction to move it.

kilo	hecto	deka	meter	deci	centi	milli
			gram			
			liter			

Example 1: Convert 10 kilometers to centimeters.

To get from kilometers to centimeters in the chart, move 5 decimal places to the right.

10 kilometers = 1,000,000 centimeters 5 →
 $10 \text{ km} = 1,000,000 \text{ cm}$

Example 2: Convert 1000 milligrams to grams

To get from milligrams to grams in the chart, move 3 decimal places to the left.

1000 milligrams = 1 gram 3 ←
 $1000 \text{ mg} = 1 \text{ gram}$

Practice:

1. 400 grams to kilograms

$400 \text{ g} = 0.4 \text{ kg}$

2. 400 liters to milliliters

$400 \text{ L} = 400,000 \text{ mL}$

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3. 500 milligrams to centigrams

500, 50 cg

4. 1 centimeter to meters

0.01 meters

5. 45.5 centimeters to millimeters

455 mm

6. 0.0034 milliliters to liters

0.0000034

7. Your child's doctor prescribed 0.0015 grams of medication once per day. Your measuring spoon is labeled with milligrams. How many milligrams of medication should you give your child?

1.5 mg