

Name: _____ Section: _____
Metric System Conversions

Directions: Using your “Metric Map,” complete the following questions.

kilo ↔ **hecto** ↔ **deka** ↔ **UNITS** ↔ **deci** ↔ **centi** ↔ **milli**
(g - L - m)

How to Use the Your Map

1. Identify your starting point - this is the number followed by a prefix/unit.
2. Count the number of steps/places to the prefix/unit you want (final destination).
3. Move the decimal point the number of steps between the two points, in the same direction.

Part A – Convert each mass as indicated.

- | | | |
|---------------------|----------------------|-----------------------|
| 1) 50 mg = _____ g | 2) 93 mg = _____ g | 3) 183 cg = _____ kg |
| 4) 35 g = _____ mg | 5) 19 dg = _____ hg | 6) 0.25 kg = _____ g |
| 7) 100 g = _____ kg | 8) 0.55 g = _____ mg | 9) 1 g = _____ kg |
| 10) 14 kg = _____ g | 11) 1 kg = _____ mg | 12) 0.005 kg _____ cg |

Part B – Convert each length as indicated.

- | | | |
|-----------------------|-----------------------|----------------------|
| 1) 0.25 m = _____ cm | 2) 73 cm = _____ m | 3) 1000 m = _____ km |
| 4) 1.2 km = _____ m | 5) 1 km = _____ cm | 6) 0.05 m = _____ cm |
| 7) 200 cm = _____ hm | 8) 500 m = _____ km | 9) 22 km = _____ mm |
| 10) 0.5 km = _____ cm | 11) 100 km = _____ mm | 12) 43 m = _____ km |

Part C – Convert each volume as indicated.

- | | | |
|----------------------|-----------------------|-----------------------|
| 1) 1 L = _____ mL | 2) 1,100 mL = _____ L | 3) 4.5 L = _____ mL |
| 4) 50 cL = _____ L | 5) 0.66 kL = _____ L | 6) 50 hL = _____ cL |
| 7) 100 L = _____ mL | 8) 1.39 L = _____ mL | 9) 5,000 mL _____ kL |
| 10) 15 dL = _____ hL | 11) 18 mL = _____ cL | 12) 0.1 cL = _____ kL |