

Physical Science
Metric Conversions Worksheet #1

Name _____ Block: ____

What metric units would be used to represent each of the following?

- | | | |
|-----------------|-----------------|------------------|
| 1. 1000 grams | kilogram | 4. 41/1000 meter |
| 2. 1/10 liter | | 5. 1/100 m |
| 3. 1/1000 liter | | 6. 1000 s |

Convert each of the following measurements to the units indicated. Show your work!

7. 5000 grams to kilograms

12. 400 seconds to kiloseconds

$$5000 \text{ g} \times \frac{\quad}{\quad} = 5 \text{ kg}$$

8. 100 liters to milliliters

13. 450 meters to centimeters

9. 100 meters to centimeters

14. 3 kilograms to grams

10. 2000 milliliters to liters

15. 120 milliseconds to seconds

11. 30 centimeters to meters

16. 24.5 kilograms to grams

MORE PROBLEMS ON BACK →

You can convert any values within the metric system, even if you only remember a few relationships. Sometimes, you'll need to use a two step process. For example, when converting 200 millimeters to centimeters:

You know that 1000 millimeters = 1 meter
and 100 centimeters = 1 meter

Use a two-step process:

$$200 \text{ mm} \times \frac{1 \text{ m}}{1000 \text{ mm}} \times \frac{100 \text{ cm}}{1 \text{ m}} = 20 \text{ cm}$$

Then ask yourself: *Does it make sense?*

Yes, a mm is smaller than a cm, so there should be more of them

Try These:

12. 50 millimeters to centimeters

$$50 \text{ mm} \times \frac{\text{m}}{\text{mm}} \times \frac{\text{cm}}{\text{m}} = \quad \text{cm}$$

13. 5000 deciliters to kiloliters

$$5000 \text{ dl} \times \frac{\quad}{\text{dl}} \times \frac{\text{kl}}{\quad} = \quad \text{kl}$$

14. 100 kilograms to centigrams

$$\times \frac{\quad}{\quad} \times \frac{\quad}{\quad} =$$

15. 100 centimeters to millimeters

16. 12 kiloseconds to milliseconds