**Metric System**

**Base Units**

|  |  |  |
| --- | --- | --- |
| Measurement | Base Unit | Symbol |
| Length |  |  |
| Mass |  |  |
| Volume |  |  |
| Time |  |  |
| Temperature |  |  |

**Note:** One cubic centimeter = 1 mL

**Prefixes:**

|  |  |  |  |
| --- | --- | --- | --- |
| Prefix | Symbol | Meaning | Order of Magnitude |
| *Giga-* | G | 1 000 000 000 | 109 |
| *Mega -*  | M | 1 000 000 | 106 |
|  | k  |  | 103 |
| *hetco -*  | h  |  |  |
| *deka-* | da |  | 101 |
|  | base unit | 1 | 100 |
| *deci-* | d |  |  |
| *centi-* | c |  |  |
| *milli -*  |  | 0.001 | 10-3 |
| *micro -*  |  |  |  |
| *nano -* |  |  | 10-6 |
| *pico -*  |  | 0.000 000 001 | 10-9 |



**Convert the following:**

1000 mg = \_\_\_\_\_\_\_\_\_\_\_\_ g 1 L = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ mL

160 cm = \_\_\_\_\_\_\_\_\_\_\_\_\_ mm 14 km = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ m

100 g = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ kg 250 m = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ km

75 km = \_\_\_\_\_\_\_\_\_\_\_\_\_ cm 2 kg = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ mg

2.4 mm = \_\_\_\_\_\_\_\_\_\_\_\_\_ um 18 um = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ mm

4.3 cm3 = \_\_\_\_\_\_\_\_\_\_\_\_\_ mL

Which metric unit would you use to measure each of the following?

1. Volume of a glass of milk \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Length of your textbook \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Mass of a mouse \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Mass of a killer whale \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Volume of a marble \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Temperature of the Gulf of Mexico \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Read pages 11-15. Answer Practice Problems 1-5 on page 15.