Name Date Class

SECTION 2 Reinforcement

Standards of Measurement

Chapter 1.2 Review

Directions: *Complete the table below by supplying the missing information.*

Measurement	Base unit	Symbol
1.	meter	5.
mass	3.	6.
2.	second	7.
temperature	4.	8.

Directions: *In each of the following, circle the units that would most likely be used to express each kind of measurement. You may circle more than one answer for each term.*

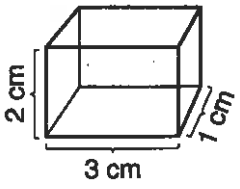
9. volume of a solid: mL m^3 cm^3 L
10. volume of a liquid: mL mg cm^3 L
11. density of a material: g g/cm^3 kg/m^3 L
12. temperature: °K K °C Kg
13. mass: kg K cm^3 mg
14. time: kg K s mm
15. length: K km m cm

Directions: *For each pair of equations, write the letter of the equation that expresses an equal value.*

_____ 16.	**a.** 1 L = 1 dm^3	**b.** 1 L = 1 cm^3
_____ 17.	**a.** 1 mL = 1 cm^3	**b.** 1 cm^3 = 1 L
_____ 18.	**a.** 0°C = –273 K	**b.** 0 K = –273°C
_____ 19.	**a.** 1 kg = 100 g	**b.** 1,000 g = 1 kg
_____ 20.	**a.** 400 cm = 4.0 m	**b.** 400 cm = 0.40 m
_____ 21.	**a.** 1 dm = 10 m	**b.** 1 dm = 0.10 m
_____ 22.	**a.** 100°C = 373 K	**b.** 373 K = 10°C

Directions: *Calculate the volume of the box in the diagram.*

23. _____



CHAPTER 1
PRACTICE 1

Little Millie Metric

When making measurements, it is important to use the correct metric unit. Read the story below and fill in the blanks with the right unit. Choose the unit from the following list. Each unit will be used only once.

milliliter	liter	gram
kilogram	millimeter	centimeter
meter	kilometer	degrees Celsius

It was a beautiful day. The temperature was a mild 27 _____. Little Millie Metric was packing a lunch basket to take to Grandma's house. She carefully poured 500 _____ of homemade lemonade into a bottle, which she put in the basket. Then she placed 0.5 _____ of cheese, 200 _____ of roast beef, and several large chocolate chip cookies in the basket. She strapped the basket on the back of her moped and took a quick check of the gas tank. There were several _____ of gasoline left.

After traveling a little more than 5 _____, Millie discovered she had lost her way. At the next corner she spotted a very hairy character leaning against a lamppost. He looked to be only 1½ _____ tall. He had a wolfish grin and dark, piercing eyes. He introduced himself as Mr. W and offered to help Millie.

Mr. W's directions turned out to be the long way to Grandma's house. So Millie arrived an hour late. She let herself in and found Grandma in bed. Grandma did not look well. Had she always been so hairy? And those ears! "My goodness," Millie gasped, "what big ears you have, Grandma—at least 15 _____." To which Grandma replied, "The better to hear you, my dear." Then Millie spotted the teeth. "My, Grandma, what big teeth you have—longer than 25 _____." This last observation made Grandma very angry. She jumped out of bed and snarled, "The better to eat you!" Now Millie realized that this was not Grandma, but the hairy Mr. W!

PHYSICAL SCIENCE
METRIC CONVERSION PRACTICE SHEET

1. 4500 ml = _____L
2. 6.5 km = _____ m
3. 18 cm = _____ m
4. 0.5 L = _____ ml
5. 1500 m = _____ km
6. 750 g = _____ kg
7. 160 cm = _____ m
8. 8.8 g = _____mg
9. 0.024 kg = _____ g
10. 865 ml = _____ L
11. 2.4 kg = _____ g
12. 0.7 m = _____ cm
13. 122 mm = _____ cm
14. 2800 mg = _____ g
15. 63.5 cm = _____ mm
16. 25 g = _____ mg
17. 2 L = _____ ml
18. 4350 mg = _____ g
19. 4.2 m = _____ cm
20. 8.3 cm = _____ mm

Units

length — meter (m)

volume — liter (L)

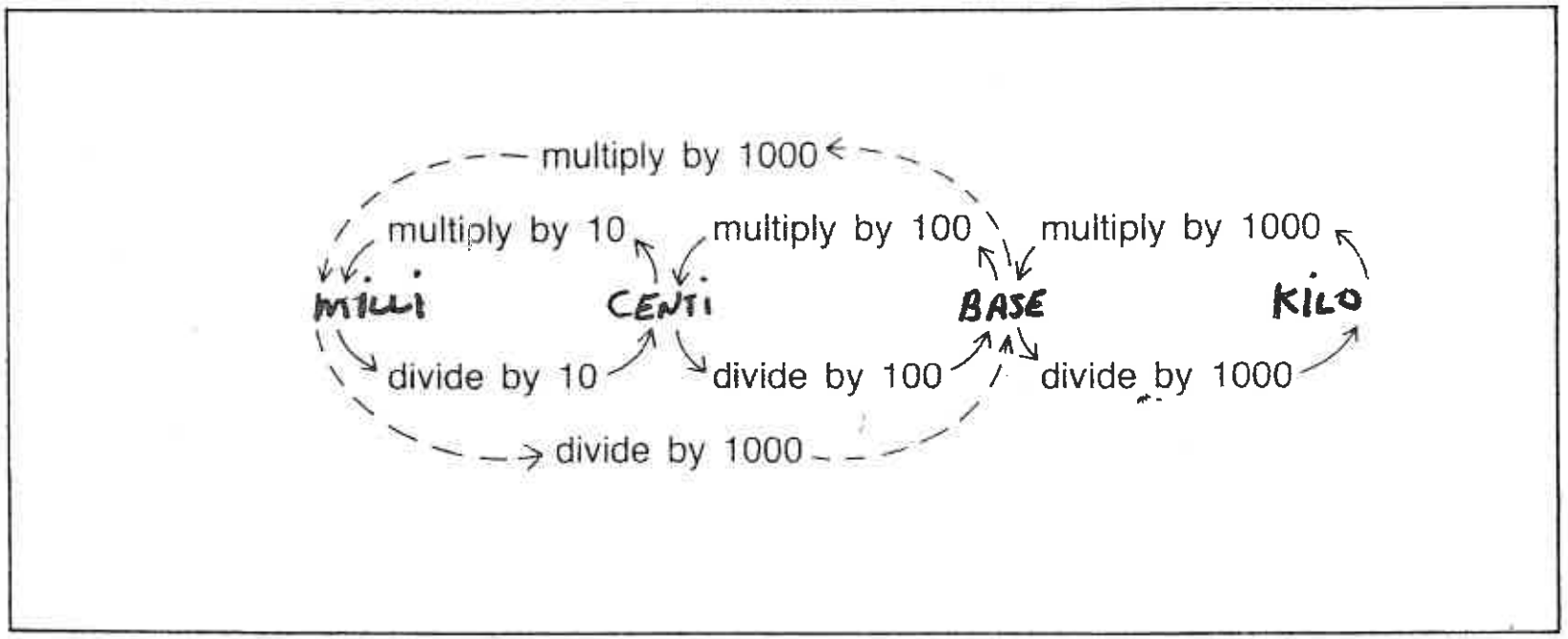
mass — gram (g)

Prefixes

kilo (k) — 1000

centi (c) — 1/100

milli (m) — 1/1000



1. 1 km = _____ m
2. 1 m = _____ cm
3. 1 cm = _____ mm
4. 25 km = _____ m = _____ cm = _____ mm
5. 5000 mL = _____ cL = _____ L = _____ kL