

SECTION

4-C

Ready to Go On? Skills Intervention**4-9 Metric Measurements**

When measuring an object, you can use metric units. First, you must learn to choose the appropriate unit to measure the object. You should use larger units for larger measurements, like the capacity of a swimming pool. You should use smaller units for smaller measurements, like the length of your finger. You can use benchmarks to help you choose a unit. Benchmarks are objects with familiar dimensions that you can compare the measurement to.

Choosing the Appropriate Metric Unit

Choose the most appropriate metric unit for each measurement. Tell why you chose that unit.

A. the mass of a fly

A fly probably weighs _____
1 gram so _____ is the
appropriate unit.

B. the length of a highway

A highway is probably _____
1 meter so _____ is the
appropriate unit.

Converting measurements to different metric units is easy. From larger to smaller, you must multiply by a power of ten. From smaller to larger, you must divide by a power of ten. When you multiply, the decimal point moves to the right. When you divide, it moves to the left. You can tell how many places to move the decimal point by the number of zeros in the power of ten.

Converting Metric Units

Convert each measure.

A. 650 centimeters to meters

This conversion is from _____
units to _____ units, so the
decimal point moves to the _____.

There are _____ centimeters in
1 meter. There are _____ zeros in _____,
so the decimal point moves _____ places
to the _____.

650 centimeters = _____ meters

B. 8.14 kilograms to grams

This conversion is from _____
units to _____ units, so the
decimal point moves to the _____.

There are _____ grams in
1 kilogram. There are _____ zeros in _____,
so the decimal point moves
_____ places to the _____.

8.14 kilograms = _____ grams

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Ready to Go On? Problem Solving Intervention

4-9 Metric Measurements

When comparing metric measurements, you may need to convert one or more of the measurements in order to compare like units.

Over the course of a day, Don drank 1 liter of water and 0.5 liter of juice. In the same day, Sharon drank 800 milliliters each of water and juice. Who drank more during that day?

Understand the Problem

1. How much did Don drink? How much did Sharon drink?

2. How can you compare the two quantities?

Make a Plan

3. How many milliliters are in 1 liter?
4. Which is the larger unit, milliliters or liters?
5. How can you convert liters to milliliters?
6. Which direction will the decimal point move?
7. How many places will the decimal point move?

Solve

8. In milliliters, how much did Don drink?
9. Who drank more?

Check

10. Why is it reasonable to say that Sharon drank more than Don?

Solve

11. If Don drinks another 350 milliliters of juice, will he have drunk more or less than Sharon?
