

Name \_\_\_\_\_ Date \_\_\_\_\_ Per \_\_\_\_\_

## Units of Length

1. Name the units in order of their size with the smallest first.

\_\_\_\_\_

2. Write the abbreviation for:

meter \_\_\_\_\_ centimeter \_\_\_\_\_ millimeter \_\_\_\_\_ decimeter \_\_\_\_\_

3. Write the missing numerals.

$1\text{m} = \underline{\quad\quad} \text{dm}$

$2\text{m} = \underline{\quad\quad} \text{mm}$

$1000\text{mm} = \underline{\quad\quad} \text{m}$

$1\text{m} = \underline{\quad\quad} \text{cm}$

$4\text{m} = \underline{\quad\quad} \text{cm}$

$200\text{dm} = \underline{\quad\quad} \text{m}$

$1\text{m} = \underline{\quad\quad} \text{mm}$

$5\text{m} = \underline{\quad\quad} \text{dm}$

$700\text{cm} = \underline{\quad\quad} \text{m}$

$1\text{dm} = \underline{\quad\quad} \text{mm}$

$40\text{dm} = \underline{\quad\quad} \text{mm}$

$130\text{cm} = \underline{\quad\quad} \text{m}$

$1\text{dm} = \underline{\quad\quad} \text{cm}$

$100\text{dm} = \underline{\quad\quad} \text{m}$

$500\text{mm} = \underline{\quad\quad} \text{dm}$

$10\text{dm} = \underline{\quad\quad} \text{m}$

$20\text{dm} = \underline{\quad\quad} \text{cm}$

$30\text{m} = \underline{\quad\quad} \text{dm}$

$1\text{cm} = \underline{\quad\quad} \text{mm}$

$500\text{cm} = \underline{\quad\quad} \text{m}$

$4\text{m} = \underline{\quad\quad} \text{cm}$

$10\text{cm} = \underline{\quad\quad} \text{dm}$

$40\text{cm} = \underline{\quad\quad} \text{mm}$

$120\text{mm} = \underline{\quad\quad} \text{cm}$

$100\text{cm} = \underline{\quad\quad} \text{m}$

$150\text{cm} = \underline{\quad\quad} \text{dm}$

$27\text{dm} = \underline{\quad\quad} \text{cm}$

4. Measure each line segment to the nearest cm.

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

d. \_\_\_\_\_

a. = \_\_\_\_\_

c. = \_\_\_\_\_

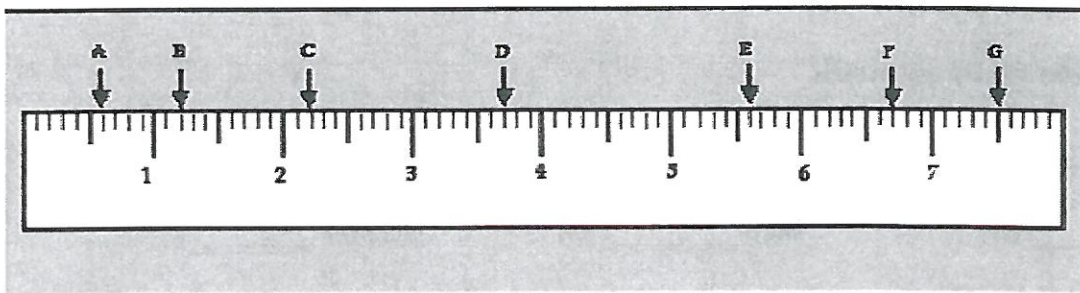
b. = \_\_\_\_\_

d. = \_\_\_\_\_

The beauty of the metric system is that it is based on the number 10.

- The diagram below shows you a section of a metric ruler.
- Each numbered line represents one centimeter.
- Each small mark after the numbered lines represents one tenth of a centimeter.
- The larger mark between numbered lines represents five tenths of a centimeter.
- This allows you to easily see the number of lines over the whole centimeter that an object measures.

In the metric system, we always use decimals, never fractions.



#### Instructions

1. Look at the diagram of part of a metric ruler. Above it are some arrows with letters.
2. Look at the letter, determine the measurement and
3. You **must always** include a unit like centimeter in your answers.

You may use abbreviations. Below are some abbreviations for common metric linear measures.

Millimeter	mm	Centimeter	cm	Decimeter	dm
Meter	m	Kilometre	km		

- a. \_\_\_\_\_ d. \_\_\_\_\_
- b. \_\_\_\_\_ e. \_\_\_\_\_
- c. \_\_\_\_\_ f. \_\_\_\_\_
- g. \_\_\_\_\_

# Length Lab

Name \_\_\_\_\_

1. What does each unit represent?

(a) mm = \_\_\_\_\_

(b) m = \_\_\_\_\_

(c) cm = \_\_\_\_\_

(d) km = \_\_\_\_\_

2. How much does each one equal?

(a) 1 m = \_\_\_\_\_ cm

(b) 1 cm = \_\_\_\_\_ mm

(c) 1 km = \_\_\_\_\_ m

3. Which measurement is the largest? Circle your answer for each pair.

(a) 14 mm or 1 cm

(d) 145 m or 145 km

(b) 334 m or 1 km

(e) 3.4 cm or 30 mm

(c) 1 m or 990 cm

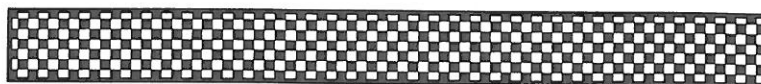
(f) 10 km or 1000 cm

4. Use a metric ruler or meter stick to find each measurement.



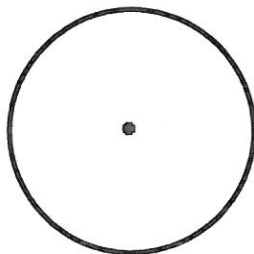
(a) Length of the line in centimeters \_\_\_\_\_

(b) Length of the line to the nearest centimeter \_\_\_\_\_



(c) Height of the rectangle to the nearest millimeter \_\_\_\_\_

(d) Width of the rectangle to the nearest millimeter \_\_\_\_\_

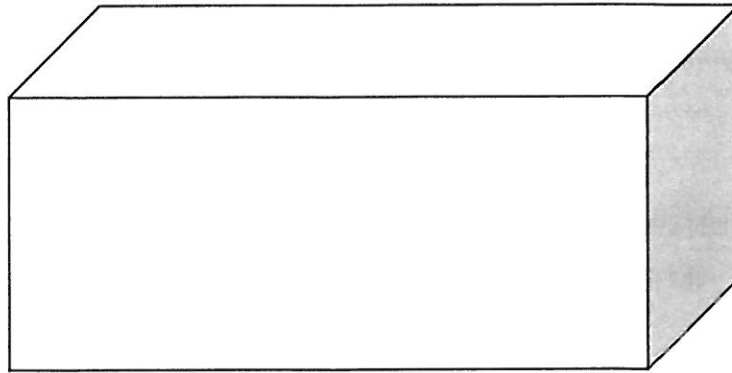


(e) Radius of the circle to the nearest millimeter \_\_\_\_\_

(f) Diameter of the circle in centimeters \_\_\_\_\_

(g) Diameter of the circle to the nearest centimeter \_\_\_\_\_

HINT: If it says "nearest", you need to round your answer so you don't have a decimal point. If not, you should have one decimal point in your answer.



(h) Volume of the box in cubic centimeters

$$\underline{\hspace{2cm}} \times \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

(Measure to the nearest centimeter before multiplying.)

5. Find the length of an unsharpened pencil (including eraser) in millimeters. \_\_\_\_\_
6. What is your height in centimeters? \_\_\_\_\_ What is your height in meters? \_\_\_\_\_
7. Find the distance between the two index cards in the hallway in meters. \_\_\_\_\_
8. Use your shoe and a metric ruler to complete this section. Keep your shoes on for this one!
  - (a) What is the length of your shoe to the nearest centimeter? \_\_\_\_\_
  - (b) How many shoes would it take (heel to toe) to make 1 meter? \_\_\_\_\_
  - (c) How many shoes would it take to make 1 kilometer? \_\_\_\_\_
9. Use ten pennies and a metric ruler to complete this section.
  - (a) How tall is a stack of ten pennies in centimeters? \_\_\_\_\_
  - (b) How tall would a stack of 100 pennies be in centimeters? \_\_\_\_\_
  - (c) How tall would a stack of 1000 pennies be in centimeters? \_\_\_\_\_
10. Circle the BEST metric unit for each.
  - (a) The length of an eyelash    mm    cm    m    km
  - (b) The height of a flagpole    mm    cm    m    km
  - (c) The length of a strand of spaghetti        mm    cm    m    km
  - (d) The distance from Chicago, IL, to Peoria, IL.                    mm    cm    m    km