

## Worksheet: Measuring Length with the Metric System

### COORDINATED SCIENCE 1

**Directions:** Answer the following questions using the notes, textbook, and conversion chart below for resource.

Distance		
1 inch	= 2.54 centimeters	= 25.4 millimeters
1 foot	= 0.305 meter	= 30.48 centimeters
1 yard	= 0.9144 meter	
1 mile	= 1.61 kilometers	= 5,280 feet
1 kilometer	= 1,000 meters	= 0.6214 mile
1 meter	= 100 centimeters	= 1,000 millimeters
1 meter	= 3.28 feet	
1 centimeter	= 0.3937 inch	= 10 millimeters
1 millimeter	= 0.039 inch	= 0.1 centimeter
1 micron	= $10^{-4}$ centimeter	= $10^{-6}$ meter
$10^{-6}$ meter	= 1 micrometer	

1. Which is **longer**? (circle your choice for each one)

- a. 1 mile or 1 kilometer                  b. 1 yard or 1 meter                  c. 1 inch or 1 centimeter

2. Complete each statement.

- a. 1 Mile = \_\_\_\_\_ km                  b. 1 yard = \_\_\_\_\_ m                  c. 1 inch = \_\_\_\_\_ cm

3. What does each **unit** represent?

(a) mm = \_\_\_\_\_                          (b) m = \_\_\_\_\_

(c) cm = \_\_\_\_\_                          (d) km = \_\_\_\_\_

4. Complete each statement

- d. 1 km = \_\_\_\_\_ m                  e. 1 m = \_\_\_\_\_ cm                  f. 1 m = \_\_\_\_\_ mm

g. 1 cm = \_\_\_\_\_ mm

5. The basic unit of **length** in the metric system is the \_\_\_\_\_ and is represented by a lowercase \_\_\_\_\_.

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

- a. 14 mm or 1 cm                          b. 145 m or 145 km                          c. 334 m or 1 km  
 d. 3.4 cm or 30 mm                      e. 1 m or 990 cm                          f. 10 km or 1000 cm

7. Circle the **BEST metric unit** for each.

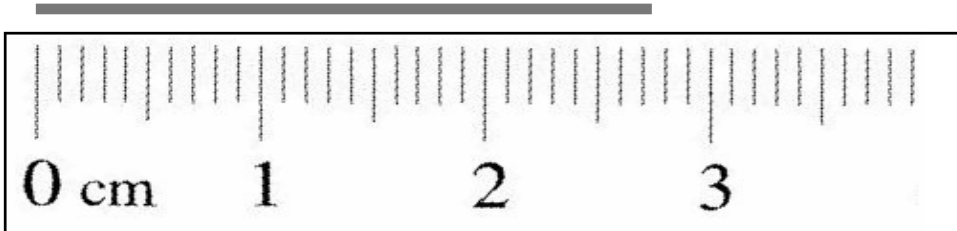
a. The length of an eyelash      *mm*      *cm*      *m*      *km*

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 Los Angeles to San Diego.      *mm*      *cm*      *m*      *km*

8. Use the **ruler and line below** to answer the questions.



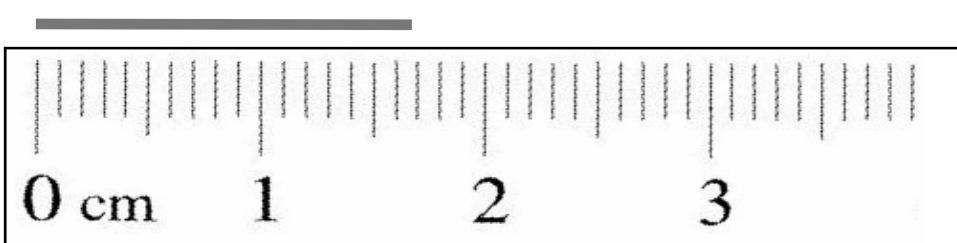
a. What is the length of the line in **centimeters**? \_\_\_\_\_ cm

b. What is the length of the line in **millimeters**? \_\_\_\_\_ mm

c. What is the length of the line to the **nearest centimeter**? \_\_\_\_\_ cm

HINT: Round to the nearest centimeter – no decimals.

9. Use the **ruler and line below** to answer the questions.



a. What is the length of the line in **centimeters**? \_\_\_\_\_ cm

b. What is the length of the line in **millimeters**? \_\_\_\_\_ mm

c. What is the length of the line to the **nearest centimeter**? \_\_\_\_\_ cm

10. What is the main advantage using the metric system in science?