



Name: KEY Period: \_\_\_\_\_ Date: 8/20/16

# Measurement in Science

Directions: Read pages 39 to 44 in your Interactive Science textbook. Answer the following questions from your book.

## A. Background

1. What system do scientists use to measure? Metric System

## B. Length

Question	Answer
2. What is the basic unit used for length?	meter
3. What is one lab tool used to measure length?	ruler
4. 1 meter = how many centimeters? (hint: use side boxes)	100 cm

## C. Mass

5. What is the basic unit used for mass?	Kilograms
6. What is one lab tool used to measure mass?	balance / scale
7. 1 kg = how many grams? (hint: use side boxes)	1,000 g

## D. Volume

8. Write the definition of volume	Amount of space an object or substance takes up.
9. What is the basic unit for volume?	cubic meter $m^3$
10. What tool is used to measure volume of liquid?	graduated cylinder

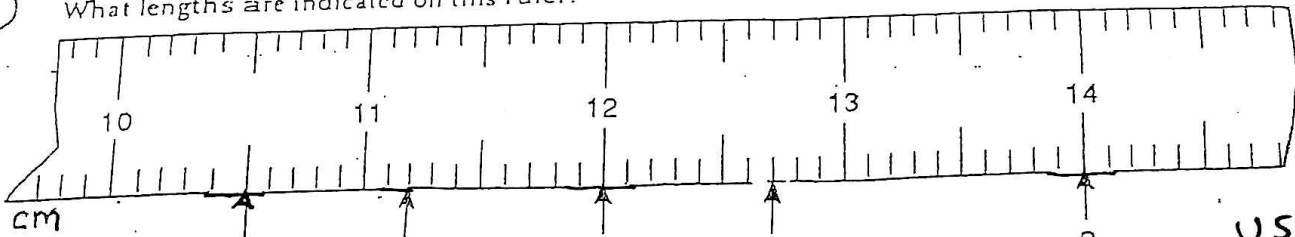
## E. Density

11. Write the definition of density.	how much mass in a given volume
12. What is the basic unit for density?	$g/cm^3$ or $Kg/m^3$

### Metric Ruler: Determining Length

Use proper measurement. **units.**

1. What lengths are indicated on this ruler?



- a. 10.5 cm
- b. 11.2 cm
- c. 12 cm
- d. 12.7 cm
- e. 14 cm

\* use cm

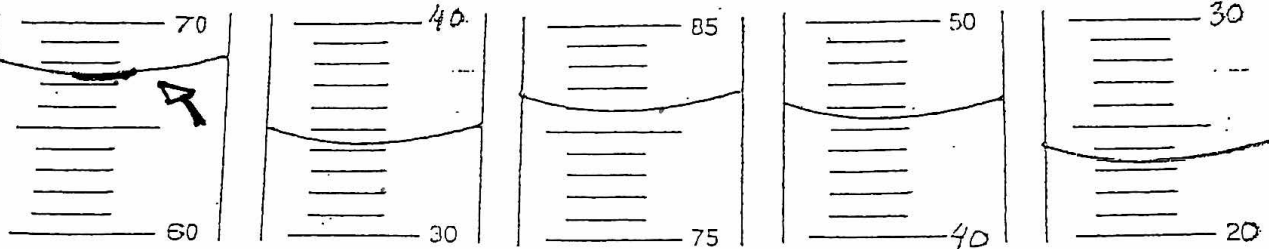
### Graduated Cylinder: Measuring Liquid Volume

\* Use mL.

2. What volume is indicated on each of these graduated cylinders?

Read from the bottom of the curve called the meniscus.

Read from the bottom of the curve called the meniscus.

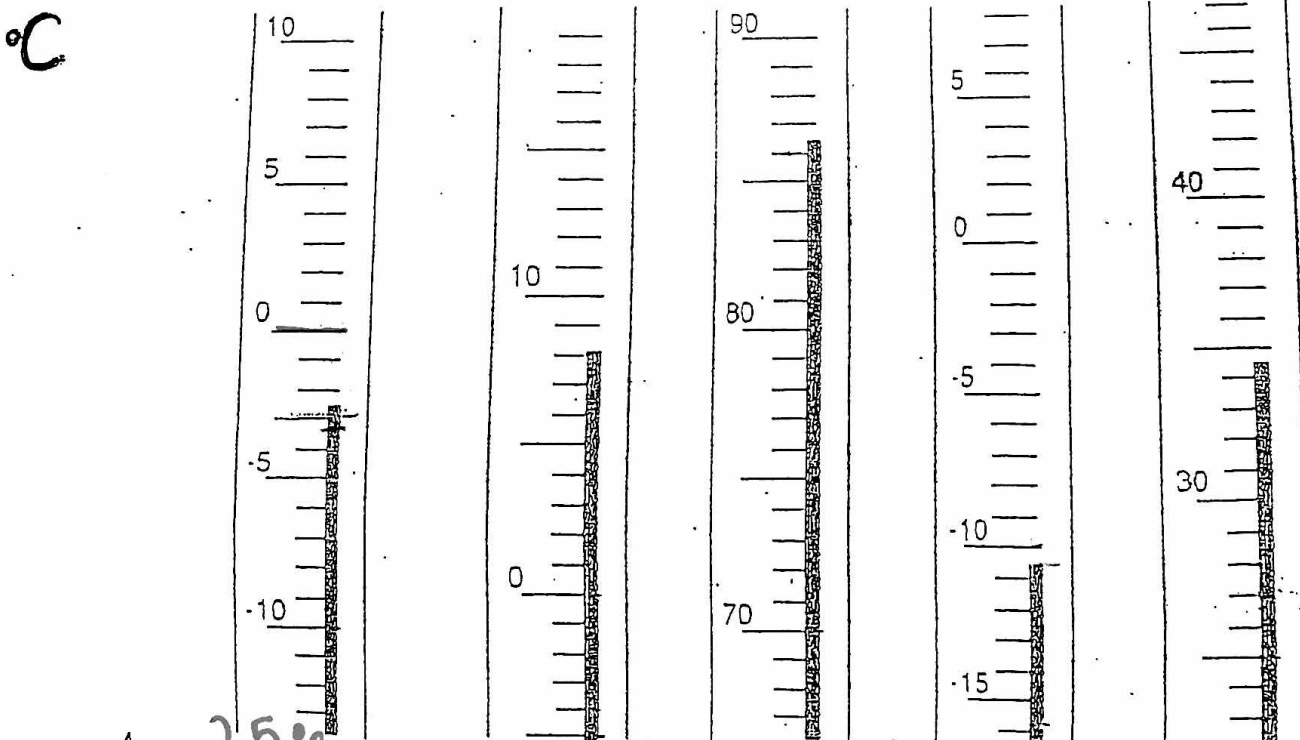


- a. 67.5 mL
- b. 34.5 mL
- c. 81 mL
- d. 45.5 mL
- e. 23.5 mL

### Thermometer: Measuring Temperature

\* °C = degrees celcius

3. What temperature is indicated on each of these thermometers?



- A. -2.5°C
- B. 8.1°C
- C. 86.5°C
- D. -10.5°C
- E. 34.5°C