

Scientific Measurements Test

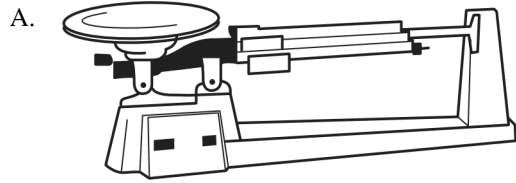
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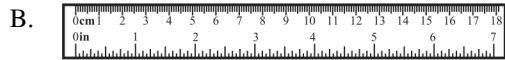
1. The amount of space a substance occupies is known as its

- A. mass
- B. volume
- C. density
- D. matter

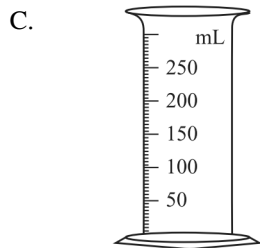
2. Which of the following instruments is *best* to use to measure the **mass** of a liquid?



Triple beam balance



Ruler



Graduated cylinder



Thermometer

3. Which is the *best* metric unit for measuring the distance a student kicks a football?

- A. Liters (L)
- B. Meters (m)
- C. Kilograms (kg)
- D. Centimeters (cm)

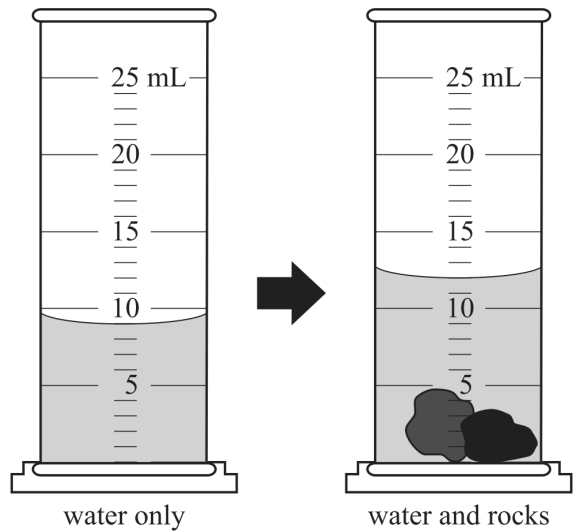
4. Anything that has mass and takes up space is known as

- A. mass
- B. volume
- C. matter
- D. density

5. Elaine wants to measure the mass of a large marble. Which units should Elaine use?

- A. liters
- B. grams
- C. meters
- D. degrees

6. A student puts water in a graduated cylinder and carefully adds two small rocks.



What is the volume of the rocks?

- A. 2 mL
- B. 3 mL
- C. 5 mL
- D. 12 mL

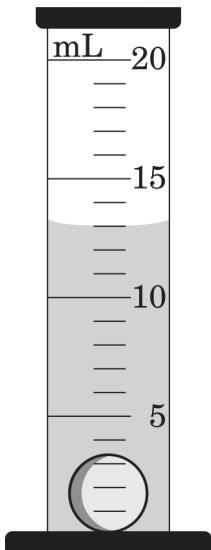
7. Which of the following objects would most likely sink in water?

- A. A wooden boat made from sugar maple that has a density of 0.60 g/cm^3
- B. A wooden boat made from oak that has a density of 0.85 g/cm^3
- C. A candle with a density of 0.9 g/cm^3
- D. A copper pipe with a density of 8.96 g/cm^3

8. Peter is traveling 3.5 kilometers to Sophie's house. How many meters does Peter have to travel?

- A. 0.0035
- B. 0.035
- C. 350
- D. 3,500

9. This diagram shows a marble with a mass of 3.8 g that was placed into 10 mL of water.



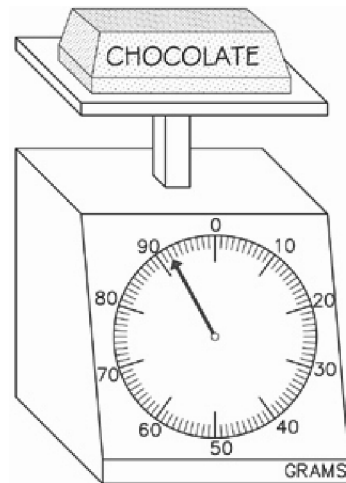
What is the density of the marble?

- A. 0.79 g/cm^3
- B. 0.95 g/cm^3
- C. 1.05 g/cm^3
- D. 1.27 g/cm^3

10. The amount of matter there is in an object is known as its

- A. mass
- B. volume
- C. matter
- D. density

11. The chocolate bar weighs 92 g.



How many milligrams does the chocolate bar weigh?

- A. 92,000 mg
- B. 920 mg
- C. 9,200 mg
- D. .092 mg

12. A student is trying to find the density of a tennis ball.



What additional information does the student need to find the ball's density?

- A. mass
- B. volume
- C. weight
- D. circumference

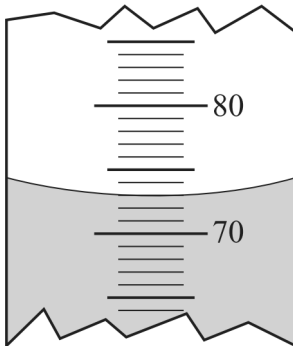
13. Several common metals are listed in this chart.

Common Metals

Metal	Density (g/cm ³)
aluminum	2.7
iron	7.9
lead	11.4
silver	10.5

Assuming equal volumes of each, a cube of which metal would have the greatest mass?

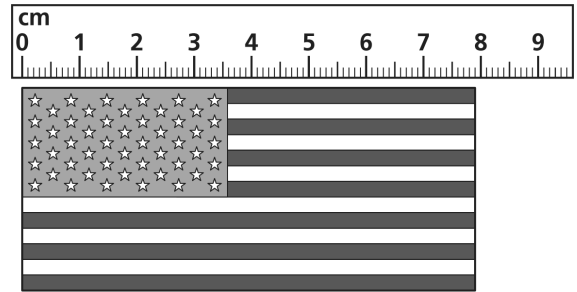
- A. aluminum B. iron
 C. lead D. silver
14. How many milligrams are in 10 decigrams?
- A. 1 B. 10 C. 100 D. 1,000
15. The drawing below shows part of a graduated cylinder containing liquid.



Based on the sensitivity of the graduated cylinder, what is the volume of the liquid?

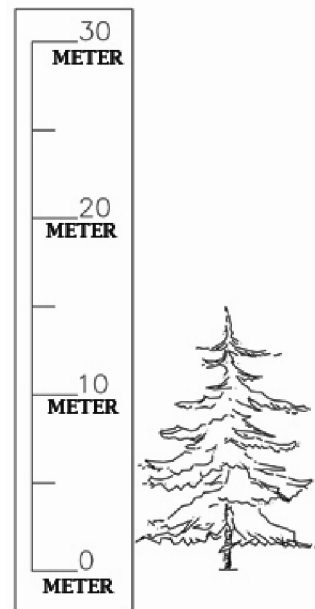
- A. 70.5 mL B. 73.0 mL
 C. 76.7 mL D. 87.0 mL
16. How many millimeters are in 5 meters?
- A. 5 B. 50 C. 500 D. 5,000

17. Juanita used the ruler below to measure the length of the flag drawn below.



Which is closest to the length of the flag?

- A. 79 meters B. 79 decimeters
 C. 79 centimeters D. 79 millimeters
18. Mr. Nelson measured a bucket and said it was about 5,000 cubic centimeters. What did he measure?
- A. Radius B. Volume
 C. Area D. Perimeter
19. The tree is 15 meters tall.



How tall is the tree in centimeters?

- A. 0.015 cm B. 150 cm
 C. 1,500 cm D. 15,000 cm

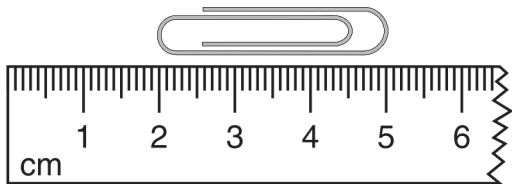
20. How many centimeters are in 567 hectometers?

- A. 0.0567 cm
- B. 5,670 cm
- C. 560,000 cm
- D. 5,670,000 cm

21. How many milliliters are in 4 liters?

- A. 4
- B. 400
- C. 4,000
- D. 40,000

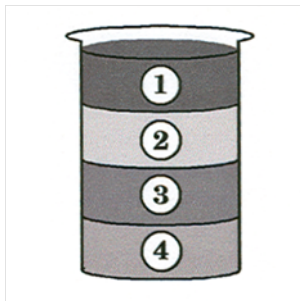
22. Use the picture below to answer the following question.



What is the length of the paper clip to the nearest centimeter?

- A. 2
- B. 3
- C. 5
- D. 6

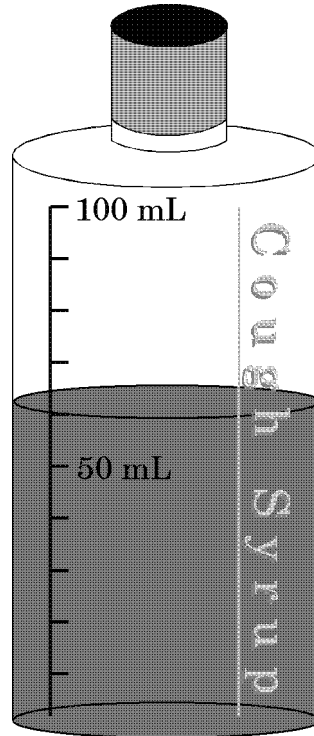
23. The diagram below represents 4 different liquids that have been poured into a container and separated.



Which liquid has the **greatest** density?

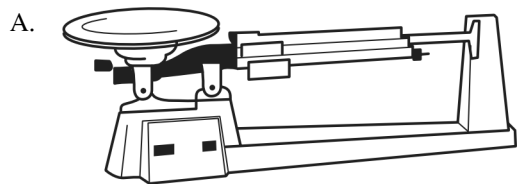
- A. Liquid 1
- B. Liquid 2
- C. Liquid 3
- D. Liquid 4

24. How many milliliters of cough syrup are in the bottle?



- A. 30 mL
- B. 40 mL
- C. 50 mL
- D. 60 mL

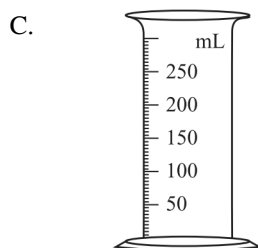
25. Which of the following instruments is *best* to use to measure the **volume** of a liquid?



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