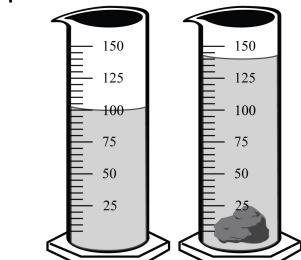


Some questions (c) 2012 by CSCOPE.

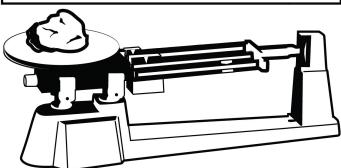
- Samantha is examining an object in science class. It is solid, does not conduct, malleable, and is a shiny silver color. The sample is MOST likely a
 - A non-metal
 - **B** metalloid
 - **C** metal
 - **D** semi-conductor
- 2 Roger is examining an object in science class. It is a pale yellow, brittle solid, with no shine. The sample is MOST likely a —
 - **F** non-metal
 - **G** metalloid
 - **H** metal
 - **J** semi-conductor

- **3** Gloria needs to find the density of a cube. Each side of the cube measures 3 cm and the mass of the cube is 12 g. What is the approximate density of the cube?
 - \mathbf{A} 0.4 g/cm³
 - **B** 1.3 g/cm^3
 - **c** 4.0 g/cm^3
 - **D** $_{36 \text{ g/cm}}^{3}$

4



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0 10	20	30	40	50	60	70	80	90	100
_									
0	100	20	00	300	40	00	500	60	00
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What is the density of the rock sample shown in the illustration?

- **F** 4.0 g/cm^3
- **G** 4.5 g/cm^3
- **H** 5.0 g/cm^3
- **J** 5.5 g/cm^3

Mohs Hardness Scale									
1	2	3	4	5	6	7	8	9	10
Tale	Gypsum	Calcite	Fluorite	Apatite	Orthoclase	Quartz	Topaz	Corundum	Diamond
	Q			V					
	finger	nail pe	nny	gl	ass	knife			

Lisa found a pretty rock while hiking with her family. She discovered that the rock will scratch glass, but not her steel knife. According to Mohs Hardness Scale, what does Lisa know about the rock?

- **A** It is harder than orthoclase, but softer than topaz.
- **B** It is harder than corundum, but softer than gypsum.
- **C** It is harder than calcite, but softer than fluorite.
- **D** It is harder than fluorite, but softer than quartz.
- **6** Anthony is testing several minerals in science class. First, he scratched the minerals across a tile, and then he scratched the minerals with a copper penny and a steel tool. What physical properties is Anthony testing for?
 - **F** color and state
 - **G** streak and hardness
 - **H** luster and conductivity
 - **J** pH and fracture

Density of Common Metals					
Type of Metal	Density (g/cm ³)				
Aluminum	2.70				
Brass	8.40				
Copper	8.90				
Gold	19.30				
Iron	7.80				
Lead	11.30				
Nickel	8.80				
Steel	7.90				

Mary decided to find the density of her metal house key to try and identify what the key was made from. She found the volume of the key to be 5 ml and the mass to be 39.5 g. Using the chart above, what type of metal is the key made from?

- **A** aluminum
- **B** steel
- **C** copper
- **D** gold

Use the table to answer the next three questions.

Title					
Metal	Density (g/cm ³)				
Aluminum	2.70				
Copper	8.90				
Gold	19.30				
Zinc	7.10				

8 Create a bar graph displaying the information from the table.

I .		
I .		
I .		

- **9** The BEST title for the data table and graph you created is
 - A A Comparison of Elements
 - **B** The Density of Metals
 - **C** How Density Changes over Time
 - **D** Why Some Metals Are Dense

- **10** The metal density data is BEST displayed as a bar graph because:
 - **F** The density of copper decreases when it comes in contact with water.
 - **G** The density of gold is dependent upon the density of aluminum.
 - **H** The density changes based on where the metal was mined.
 - **J** The density of different metals can be easily compared.

- Lisa and Jill have just finished an experiment in science class that involved several different chemicals. Which of the following is the BEST way for them to clean up their lab area?
 - **A** Ask the teacher to tell them the best way to dispose of the chemicals.
 - **B** Mix all of the chemicals together before pouring them down the sink.
 - **C** Throw all of the leftover materials into the trash can.
 - **D** Leave all of the leftover materials on the lab table.
- 12 Keanan wants to find out if a physical change will occur when he shakes a rock inside of a coffee can for 30 seconds.

Which of the following sets of lab equipment would allow him to BEST complete his experiment?

- F timer, triple beam balance
- **G** ruler, timer
- **H** ruler, graduated cylinder
- **J** timer, thermometer

Title
luster
ductility
conductivity
X

- **13** What would be the BEST title for the list?
 - **A** Chemical Properties
 - **B** Reactive Properties
 - **C** Physical Properties
 - **D** Observable Properties
- **14** What word or set of words BEST replaces X in the table?
 - **F** state of matter
 - **G** malleability
 - **H** hardness
 - **J** oxidation