

## Quiz #1 version-1

- 1i) cookie: heterogenous mixture
- 1ii) gold coin: element

2) Physical: silvery-white metal  
Physical: 20C density =  $1.738 \text{ g/cm}^3$

3) Physical: Warming metal in oven  
Physical: Water condensation on glass

4) Temperature should be Kelvin

5) centi- =  $10^{-2}$

Bonus: Carbon nanotube ~1nm

----

## Quiz #1 version-2

- 1i) water: compound
- 1ii) vodka: homogeneous mixture

2) Chemical: Sample burning in air  
Chemical: reacts with bromine to form solid

3) Chemical: grey metal becomes orange in water  
Chemical: metals bursts into flames in water

4) centi- =  $10^{-2}$

5) Temperature should be Kelvin

Bonus: Carbon nanotube ~1nm

## Quiz #2 version-1

1)  $7 \text{ cm} = 7.0 \times 10^4 \mu\text{m}$

2)  $\text{density} = 4.00 \text{ g} / 2.0 \text{ cm}^3 = 2.0 \text{ g/cm}^3$

3) The atom contains these subatomic particles, PROTONS and ELECTRONS, which are charged, and these particles which are not charged: NEUTRONS.

4)	Protons	Neutrons
Atom A	17	18
Atom B	16	19
Atom C	17	19
Atom D	18	22

Atom C is an isotope of atom A

Atom B has the same mass number as atom A

5) Cathode rays are repelled from the negatively charged plate.

-----

## Quiz #2 version 2

1)  $7 \text{ mm} = 7 \times 10^{-6} \text{ km}$

2)  $\text{density} = 2.0 \text{ g} / 4.00 \text{ cm}^3 = 0.50 \text{ g/cm}^3$

3) gamma radiation is not deflected by charged plates

4) The nucleus contains PROTONS and NEUTRONS, which are subatomic particles. The atom also contains ELECTRONS, which circle the nucleus.

5)	Protons	Neutrons
Atom A	18	18
Atom B	17	19
Atom C	16	19
Atom D	18	22

Atom D is an isotope of atom A

Atom B has the same mass number as atom A