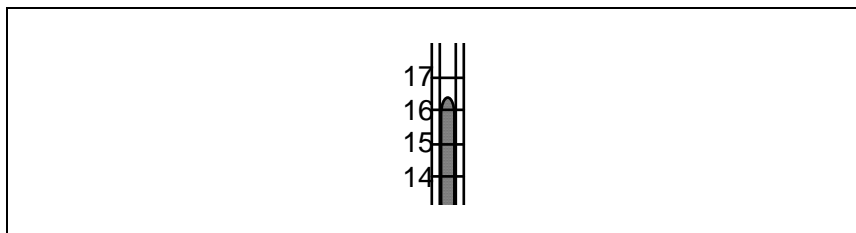


- 1) Metallic atoms become ions by
(A) losing protons. (B) gaining protons. (C) losing electrons. (D) gaining electrons.
- 2) If 50 mL of a 200 mL sample of 0.10 M sodium chloride solution is spilled, what is the concentration of the remaining solution?
(A) 0.20 M (B) 0.10 M (C) 0.075 M (D) 0.025 M
- 3) What volume is occupied by 2.00 g of a substance having a density of 5.00 g/cm³?
(A) 0.400 cm³ (B) 7.00 cm³ (C) 2.50 cm³ (D) 10.0 cm³
- 4) How much heat is required to raise the temperature of 25.0 g of iron from 10.0 °C to 40.0 °C if the specific heat of Iron is 0.444 J/g°C?
(A) 750 J (B) 444 J (C) 333 J (D) 313 J
- 5) A student obtains 20.0 g of a product from an experiment. The accepted value is 25.0 g. What is the percent yield?
(A) 25% (B) 80% (C) 20% (D) 125%
- 6) How many atoms are in one mole of hydrogen sulfide, H₂S?
(A) $34 \times 6.02 \times 10^{23}$ (B) 3 (C) $3 \times 6.02 \times 10^{23}$ (D) 34
- 7) How many degrees change on the kelvin temperature scale corresponds to a change of 20.0 degrees on the Celsius scale?
(A) 20.0 (B) 36.0 (C) 253 (D) 293
- 8) To what temperature in kelvins does 273 °C correspond?
(A) 0 K (B) 32 K (C) 100 K (D) 273 K (E) 546 K
- 9) Most student thermometers have an uncertainty of 0.2 Celsius degrees. Which is the proper reading of the thermometer shown in the illustration?



- (A) 16. °C (B) 16.4 °C (C) 16.40 °C (D) 16.45 °C
- 10) The chemical properties of atoms depend principally upon
(A) their atomic masses.
(B) the masses of the nuclei involved.
(C) the number of neutrons in their nuclei.
(D) the ratio in which the atoms combine with other atoms.
(E) the number of electrons in their outermost shells.