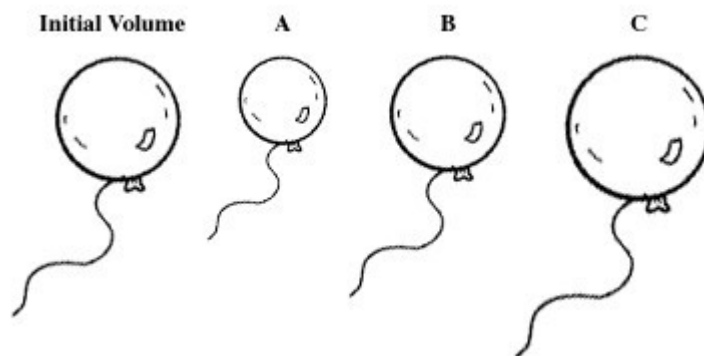


Practice Final B

Multiple Choice

- \_\_\_\_\_ 1. Which of the following salts is insoluble in water?
- A) CuS
  - B) CaCl<sub>2</sub>
  - C) NaOH
  - D) NH<sub>4</sub>NO<sub>3</sub>
- \_\_\_\_\_ 2. The volume of a sample of gas, initially at 25 °C, increases from 158 mL to 450. mL. What is the final temperature of the sample of gas, if the pressure in the container is kept constant?
- A) 105 °C
  - B) 71 °C
  - C) 576 °C
  - D) -168 °C
- \_\_\_\_\_ 3. Which of the following is NOT part of the kinetic theory of gases?
- A) A gas is composed of very small particles.
  - B) There is very little empty space in a gas.
  - C) Gas particles do not attract or repel one another.
  - D) Gas particles move rapidly.
- \_\_\_\_\_ 4. A nitric acid solution that is 70.0% (m/m) contains
- A) 70.0 g HNO<sub>3</sub> and 100.0 g of water
  - B) 70.0 g HNO<sub>3</sub> and 70.0 g of water
  - C) 70.0 mol HNO<sub>3</sub>
  - D) 70.0 g HNO<sub>3</sub> and 30.0 g of water
- \_\_\_\_\_ 5. How many grams of K<sub>2</sub>SO<sub>4</sub> are needed to prepare 4.00 L of 0.0510 M solution?
- A) 17.8 g
  - B) 63.8 g
  - C) 71.0 g
  - D) 35.5 g

A balloon is filled with helium gas. For the next two question(s), select the letter of the balloon diagram that corresponds to the given change in conditions.



- \_\_\_ 6. The temperature is changed from  $50\text{ }^{\circ}\text{C}$  to  $-150\text{ }^{\circ}\text{C}$  at constant pressure.
- A) C
  - B) B
  - C) A
  - D) A and B
- \_\_\_ 7. The balloon is put into a chamber with lower pressure at the same temperature.
- A) A
  - B) B
  - C) C
  - D) A and C
- \_\_\_ 8. A gas occupies  $15.0\text{ L}$  at STP. What volume will it occupy at  $735\text{ torr}$  and  $57\text{ }^{\circ}\text{C}$ ?
- A)  $9.7\text{ L}$
  - B)  $6.7\text{ L}$
  - C)  $4.6\text{ L}$
  - D)  $19\text{ L}$