

1. What is the pressure of a mixture of CO<sub>2</sub>, SO<sub>2</sub> and H<sub>2</sub>O gases, if each gas has a partial pressure of 250 torr?

- A. 250 torr
- B. 500 torr
- C. 750 torr
- D. 1,000 torr

2. A gas sample has a volume of 25.0 milliliters at a pressure of 1.0 atmosphere. If the volume increases to 50.0 milliliters and the temperature remains constant, the new pressure will be

- A. 1.0 atm
- B. 2.0 atm
- C. .250 atm
- D. .500 atm

3. An increase of the temperature of a system at equilibrium favors the

- A. Endothermic reaction and decreases its rate
- B. Endothermic reaction and increases its rate
- C. Exothermic reaction and decreases its rate
- D. Exothermic reaction and increases its rate

4. A sample of oxygen gas in a closed system has a volume of 200 milliliters at 600 K. If the pressure is held constant and the temperature is lowered to 300 K, the volume of the gas will be

- A. 100 ml
- B. 200 ml
- C. 300 ml
- D. 400 ml

5. Which sample of water will have the highest water pressure?

- A. 10.0 mL at 62° C
- B. 20.0 mL at 52° C
- C. 30.0 mL at 42° C
- D. 40.0 mL at 32° C

6. An assumption of the kinetic energy of gases is that the particles of a gas have

- A. Little attraction for each other and a significant volume
- B. Little attraction for each other and an insignificant volume
- C. Strong attraction for each other and a significant volume
- D. Strong attraction for each other and an insignificant volume

7. What is the volume occupied by 2.0 moles of Ar(g) at STP?

- A. 22.4 L
- B. 44.8 L
- C. 89.6 L

D. 179 L

8. Which gas is least likely to obey the ideal gas laws at very high temperatures and very low temperatures?

A. Kr

B. Ne

C. He

D. Xe

9. A gas at STP has a volume of 1.0 liters. If the pressure is doubled and the temperature remains constant, the new volume of the gas will be

A. .25 L

B. 2.0 L

C. .50 L

D. 4.0 L

10. At 1 atmosphere of pressure, 25.0 grams of a compound at its boiling point is converted to a gas by the addition of 8,180 calories. What is the heat of vaporization for this compound, in calories per gram?

A. 25.0 cal/g

B. 327 cal/g

C. 540 cal/g

D. 8,140 cal/g

Answer Key

1. C

2. D

3. B

4. A

5. A

6. B

7. B

8. D

9. C

10. B