Evaporation and Vapor Pressure Worksheet

Scoring guide · one credit per question · review written work against each rubric

Evaporation and Vapor Pressure

Question 1

Choice (2)

Particles with sufficient energy can escape from the liquid surface.

Question 2

Particles leave the liquid and return from the vapor. The two processes occur at equal rates, so the amounts remain constant.

Question 3

Choice (1)

When vapor pressure equals external pressure, vapor bubbles can form throughout the liquid.

Question 4

At higher temperature more particles have enough energy to escape the liquid. The new equilibrium has more vapor per unit volume and a higher vapor pressure.

Comparing Two Model Liquids

Question 5

Choice (1)

At 40 °C, P has a vapor pressure of 30 kPa, compared with 14 kPa for Q.

Question 6

35 kPa − 5 kPa = 30 kPa.

Question 7

Choice (1)

P has a vapor pressure of 60 kPa at 60 °C. Q has a vapor pressure of only 35 kPa at that temperature.

Question 8

Temperature affects vapor pressure for each liquid. Holding temperature the same allows differences in vapor pressure to be attributed to the liquids under the stated conditions.