Concentration Changes at Equilibrium Worksheet

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

Concentration Changes at Equilibrium

Question 1

Choice (1)

The forward direction consumes A and B to make C.

Question 2

The forward reaction makes C from A and B. Net forward change can restore some of the removed C as the system approaches equilibrium.

Question 3

Choice (3)

The reverse direction consumes C to produce A and B.

Question 4

The two rates are equal again. The amounts then remain constant, although they may differ from their values before the disturbance.

Recording a Concentration Disturbance

Question 5

Choice (3)

The reverse rate exceeds the forward rate in Q and R.

Question 6

The forward reaction produces 12 C particles/min. The reverse reaction consumes 8 C particles/min. Net C production is 12 − 8 = 4 particles/min.

Question 7

In run R, the reverse reaction is faster than the forward reaction. Each reverse reaction consumes one C particle and makes one B particle, so the net change produces B.

Question 8

Choice (3)

Equal forward and reverse rates establish dynamic equilibrium.