Checking Which Bubble Feeds the Other

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

Checking Which Bubble Feeds the Other

Question 1

P has 8/1.0 = 8 Pa of excess pressure and Q has 8/2.0 = 4 Pa. Both outside readings are 0 Pa, so the inside readings are +8 Pa for P and +4 Pa for Q.

Question 2

Choice (1)

P begins at +8 Pa and Q at +4 Pa relative to the same room pressure. Gas initially moves from P to Q because P has the higher inside pressure.

Question 3

Both outside readings are 0 Pa. The smaller bubble P adds 8 Pa at its film, while Q adds 4 Pa. Their inside pressures differ by 4 Pa even with equal outside readings.

Question 4

Q remains at +4 Pa inside. P adds 8 Pa to its outside reading, so that reading must be +4 − 8 = −4 Pa. This means the outside pressure around P is 4 Pa below room pressure.