Molarity Worksheet

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

Molarity

Question 1

Choice (2)

Divide 0.30 mol by 0.50 L to obtain 0.60 M.

Question 2

250. mL = 0.250 L. M = 0.125 mol ÷ 0.250 L = 0.500 M.

Question 3

n = MV = (0.150 mol/L)(2.00 L) = 0.300 mol.

Question 4

Choice (4)

Molarity is defined using liters of the resulting solution.

Glucose Standards

Question 5

Choice (2)

B is 0.300 M. A and C are each 0.200 M.

Question 6

For A, 0.100 mol ÷ 0.500 L = 0.200 M. For C, 0.150 mol ÷ 0.750 L = 0.200 M. The ratios are equal.

Question 7

Choice (3)

A representative portion of a homogeneous solution has the same molarity as the original.

Question 8

The portion from B has more moles. B contains more moles per liter, so n = MV is larger for B when the sample volumes are equal.