Molarity and Dilutions

What is the molarity of a solution made by dissolving 2.45 grams of glucose (molar mass is 180.2 g/mol) in enough water to make 500.0 ml of solution?

How many grams of NaOH would you need to make 1.00 liters of a 6.00 M solution?

250.0 ml of water was added to 100.0 ml of a 0.300M solution of HCl. What is the new concentration of HCl?

How many milliliters of 12.0 M HCl would you need to make 100.0 ml of a 2.00 M solution?

Molarity is defined as the moles of solute per

A) liter of solvent

B) liter of solution

C) moles of solvent

D) moles of solution

How many moles of NaCl are in 250.0 ml of a 5.00 M solution?

A) 5.00 moles

B) 2.50 moles

C) 1.25 moles

D) 0.250 moles

How many moles of Cl- ions are in 1.00 liters of a 0.200 M solution of CaCl2?

A) 0.100 moles

B) 0.200 moles

C) 0.400 moles

D) 2.00 moles

How many milliliters of 2.0 M HCl would you need to make 100.0 ml of a 0.100 M solution?

A) 2.0 ml

B) 5.0 ml

C) 20.0 ml

D) 50.0 ml