

## **Molarity Calculations**

*Calculate the molarities of the following solutions:*

- 1) 2.3 moles of sodium chloride in 0.45 liters of water.
  
- 2) 1.2 moles of calcium carbonate in 1.22 liters of water.
  
- 3) 0.09 moles of sodium sulfate in 12 mL of water.
  
- 4) 0.75 moles of lithium fluoride in 65 mL of water.
  
- 5) 0.8 moles of magnesium acetate in 5 liters of water.
  
- 6) 120 grams of calcium nitrite in 240 mL of water.
  
- 7) 98 grams of sodium hydroxide in 2.2 liters of water.
  
- 8) 1.2 grams of hydrochloric acid in 25 mL of water.
  
- 9) 45 grams of ammonia in 0.75 L of water.

*Explain how you would make the following solutions. You should tell how many grams of the substance you need to make the solution, not how many moles.*

10) 2 L of 6 M HCl

11) 1.5 L of 2 M NaOH

12) 0.75 L of 0.25 M Na<sub>2</sub>SO<sub>4</sub>

13) 45 mL of 0.12 M sodium carbonate

14) 250 mL of 0.75 M lithium nitrite

15) 56 mL of 1.1 M iron (II) phosphate

16) 6.7 L of 4.5 M ammonium nitrate

17) 4.5 mL of 0.05 M magnesium sulfate

18) 90 mL of 1.2 M BF<sub>3</sub>