

1. Sea water contains roughly 28.0 g of NaCl per liter. What is the molarity of sodium chloride in sea water?
2. What is the molarity of 245.0 g of H_2SO_4 dissolved in 1.00 L of solution?
3. What is the molarity of 5.30 g of Na_2CO_3 dissolved in 400.0 mL solution?
4. What is the molarity of 5.00 g of NaOH in 750.0 mL of solution?
5. How many moles of Na_2CO_3 are there in 10.0 L of 2.0 M solution?
6. How many moles of Na_2CO_3 are in 10.0 mL of a 2.0 M solution?
7. How many moles of NaCl are contained in 100.0 mL of a 0.20 M solution?
8. What weight (in grams) of NaCl would be contained in problem 7?
9. What weight (in grams) of H_2SO_4 would be needed to make 750.0 mL of 2.00 M solution?
10. What volume (in mL) of 18.0 M H_2SO_4 is needed to contain 2.45 g H_2SO_4 ?
11. What volume (in mL) of 12.0 M HCl is needed to contain 3.00 moles of HCl?
12. How many grams of $\text{Ca}(\text{OH})_2$ are needed to make 100.0 mL of 0.250 M solution?
13. What is the molarity of a solution made by dissolving 20.0 g of H_3PO_4 in 50.0 mL of solution?
14. What weight (in grams) of KCl is there in 2.50 liters of 0.50 M KCl solution?
15. What is the molarity of a solution containing 12.0 g of NaOH in 250.0 mL of solution?
16. Determine the molarity of these solutions:
 - a) 4.67 moles of Li_2SO_3 dissolved to make 2.04 liters of solution.
 - b) 0.629 moles of Al_2O_3 to make 1.500 liters of solution.

1. What is the percent by mass of 5.0 g of NaCl mixed with 80. g of water?
2. What is the percent by mass of 25.0 g of sodium acetate mixed with 40. g of water?
3. What mass of NaOH is found in 40. g of a 10% by mass solution? How many moles of NaOH is this?
4. What mass of lithium chloride is found in 85 g of a 25% by mass solution?
5. What is the percent mass if 22 g of KCl is added to 75g of water?
6. How many g of NaCl are found in 60. g of a 4.0% by mass solution?
7. How many grams of NaOH are needed to make 120 g of a 15% by mass solution?