Molarity Worksheet

From: http://www.dbhs.wvusd.k12.ca.us/webdocs/Solutions/WS-Molarity.html

Odd numbered problems and * are assigned. The others are available for more practice.

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 Ca $(OH)_2$ 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_3PO4 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?

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Answer Omelet

93 g	4.08 M	0.020 mol	1.85 g	1.2 M
250 ml	0.479 M	0.166 M	20 mol	1.39 ml
1.2 g	0.125 M	147 g	0.020 mol	2.50 M