

Dougherty Valley HS Chemistry
Solutions – Calculations Part 2

- 8) How many grams of CaCl_2 would be required to produce a 3.5 M solution with a volume of 2.0 L?
- 9) If 45 mL of water are added to 250 mL of a 0.75 M K_2SO_4 solution, what will the molarity of the diluted solution be?
- 10) If water is added to 175 mL of a 0.45 M KOH solution until the volume is 250 mL, what will the molarity of the diluted solution be?
- 11) How much 0.075 M NaCl solution can be made by diluting 450 mL of 9.0 M NaCl?
- 12) If 550 mL of a 3.50 M KCl solution are set aside and allowed to evaporate until the volume of the solution is 275 mL, what will the molarity of the solution be?
- 13) How much water would need to be added to 750 mL of a 2.8 M HCl solution to make a 1.0 M solution?
- 14) . Which solution is more concentrated? Solution "A" contains 50.0 g of CaCO_3 in 500.0 mL of solution. Solution "B" contains 6.0 moles of H_2SO_4 in 4.0 L of solution.

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15) 125 cm^3 of an aqueous solution contains 3.5 moles of solute. What is the molarity of the solution?

16) You perform a serial dilution starting with 12.1 M concentrated HCl. If you perform 5 dilutions, with 100mL of the stronger concentration solution being added to 500mL of water each time, what will the final concentration of your last dilution end up being?

