

Making Solutions Practice Worksheet

- 1) Explain how you would make 450 mL of a 0.250 M NaOH solution.
Add water to 4.52 grams of sodium hydroxide until the final volume of the solution is 450 mL.
- 2) To what volume will you have to dilute 30.0 mL of a 12 M HCl solution to make a 0.35 M HCl solution?
1030 mL
- 3) How many grams of calcium chloride will be needed to make 750 mL of a 0.100 M CaCl₂ solution?
8.33 grams
- 4) Explain why this experimental procedure is incorrect: To make 1.00 L of a 1.00 M NaCl solution, I will dissolve 58.5 grams of sodium chloride in 1.00 L of water.
If you were to do this, the solution would have a final volume greater than 1.00 L, because sodium chloride itself takes up space. The correct way to do this would be to add water to 58.5 grams of sodium chloride until the final volume of the solution is 1.00 L.