

Dilution Assignment

1. What volume of 12.0 M concentrated nitric acid (HNO_3) solution is necessary to make the following dilute solutions?
 - a. 200 mL of 6.0 M solution
 - b. 40 mL of 5.0 M solution
 - c. 1.0 L of a 1.0 M solution
 - d. 100.0 mL of a 3.50 M solution
 - e. 16 mL of a 12.0 M solution
2. How would you make a 200 mL solution of 3.0 M sodium hydroxide from a 5.0 M solution?
3. What volume of 12.0 M H_2SO_4 (sulfuric acid) is needed to make 1.0 L of a 3 M solution?
4. What would have to be the concentration of a solution if 20 mL of it could have been used to make 2.0 L of 0.05 M solution?
5. What volume of 18.0 M sulphuric acid is needed to make a solution of 500 mL at a concentration of 2.0 M?
6. What volume of distilled water should be added to make 600 mL of a 5.00 M formic acid solution from a 8.0 M solution?
7. How much water would have been added to a 12.0 M hydrochloric acid solution to form 500 mL of 2.0 M HCl solution?