

Molarity Practice

Name: _____

Find molarity, given mass & volume

- 1) What is the molarity if 720g of glucose ($C_6H_{12}O_6$) is dissolved in 8 L of water?

0.5 M

Find volume, given molarity & mass

- 2) What volume of water in liters is needed to make a 2.25 M solution of NaCl with 320g of solute.

2.43 L

Find moles or grams, given molarity & volume

- 3) How many moles of NaOH must be dissolved in 4500 mL of water to make a 0.50 M solution?

2.25 mol

- 4) How many grams of $AlCl_3$ is needed to make a 0.25 M solution with 1.2 L of water?

39.96 g

Mixed Practice (Before beginning the problem, identify the variable you are solving for)

- 5) What is the molarity if 63g of $Al(NO_3)_3$ is dissolved in 360 mL of water?

0.82 M

- 6) How much water is needed to make a 0.15 M solution of KF if you have 232.4g of KF?

26.7 L

- 7) How many grams of $MgCl_2$ is needed to make a 0.40 M solution if you have 750 mL of water?

28.56 g

- 8) What is the molarity of an aqueous solution if 35.1 mol of K_3N is dissolved in 2L of water?

17.55 M

- 9) What volume of water should be used to make a 5.0 M solution of $CaCl_2$ if you have 78g of the solute?

0.14 L

- 10) If a 6.7 M solution of SrF_2 is composed of 540 mL of water, how many grams are dissolved?

454.5 g