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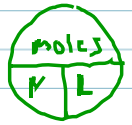
MOLARITY = $\frac{\text{moles of solute}}{\text{L of solution}}$



What is the molarity of a solution of NaOH if 6.00g of NaOH are dissolved in enough H_2O to make 500 mL of solution?

$M = \frac{\text{mol}}{L}$

NaOH
Na: 1 x 22.99 = 22.99
O: 1 x 16.00 = 16.00
H: 1 x 1.01 = 1.01
40.00 g/mol

$6.00\,g\ NaOH \times \frac{1\ mol}{40.00\,g} = 0.15$ moles

$M = \frac{0.15\ mol}{0.500\,L}$

$500\,mL \times \frac{1\,L}{1000\,mL} = 0.500\,L$

M = 0.30M NaOH

If a lab procedure requires 0.022 moles of NaOH, how many milliliters of the 0.30M NaOH solution should you use?

$L = \frac{mol}{M} = \frac{0.022\ moles}{0.30\,M} = 0.073\,L$

73 mL of 0.3M NaOH

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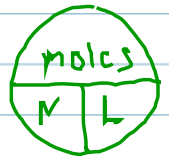

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If a lab procedure requires 0.022 moles of NaOH, how many milliliters of the 0.30M NaOH solution should you use?

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