

- 1) When excited, sodium atoms emit an intense yellow color with a wavelength of 589 nm. What is the energy of these 589 nm photons?
- 2) What is the molarity of a solution prepared by dissolving 14.0 g of methanol (CH_3OH) in enough water to make 450 mL of solution?
- 3) How many moles of glucose ($\text{C}_6\text{H}_{12}\text{O}_6$) are contained in 575 mL of a 0.25 M aqueous glucose solution?
- 4) What is the concentration of glucose in a solution prepared by adding 47 mL of a 0.33 M glucose to enough water to make 1.00 L of solution?
- 5) How many mL of 16 M HNO_3 must be used to prepare 500. mL of a 0.25 M solution?