

Keyboarding Tip Sheet for the 2020 AP Chemistry Exams

Students may complete their responses for the 2020 AP Chemistry Exam either by uploading a photo of their handwritten response or by typing on a computer or other electronic device. This Keyboarding Guide provides standard ways of entering common notation and expressions using a standard keyboard.

General tips:

- Use a serif font (recommended: Times New Roman). Differentiating between capital I and lowercase l is difficult in sans serif fonts. For example: Calibri: l vs I ; Helvetica: l vs I
- If working with word-processing software, you may find it helpful to turn off the autocorrect feature to avoid text like (c) converting to ©, or automatic capitalization and autocorrect giving an incorrect symbol, which will take time to fix.

Tip #1: Use the characters available on your keyboard and avoid special characters.

Special character	ΔH	$^{\circ}\text{C}$	$E = h\nu$	$0.08206 \frac{\text{L} \cdot \text{atm}}{\text{mol} \cdot \text{K}}$
Keyboarded	delta H	degrees C	E = h(nu)	0.08206 L*atm/(mol*K)

Tip #2: Use ^ or words to indicate exponents, and use _ or "sub" to indicate subscripts.

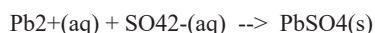
Symbolic notation	Rate = $k[\text{A}]^2$	P_{He}	$s = \sqrt{K_{sp}}$	$K = \frac{[\text{HI}]^2}{[\text{H}_2][\text{I}_2]}$
Keyboarded	Rate = $k[\text{A}]^2$ OR Rate = $k[\text{A}]$ squared	P_He OR P sub He	$s = (\text{Ksp})^{0.5}$ OR $s = (\text{Ksp})^{(1/2)}$	$K = [\text{HI}]^2 / ([\text{H}_2][\text{I}_2])$

Tip #3: Chemical symbols do not need superscripts and subscripts. The context of the question should aid clarity.

Symbolic notation	N_2O_4	SO_4^{2-}	$1s^2 2s^2 2p^3$	K_{sp}
Keyboarded	N2O4	SO42-	1s2 2s2 2p3	Ksp
Chemical equation	$2 \text{H}_2 + \text{O}_2 \rightarrow 2 \text{H}_2\text{O}$			$\text{H}_2 + \text{I}_2 \rightleftharpoons 2 \text{HI}$
Keyboarded	$2 \text{H}_2 + \text{O}_2 \rightarrow 2 \text{H}_2\text{O}$ OR $2 \text{H}_2 + \text{O}_2 = 2 \text{H}_2\text{O}$			$\text{H}_2 + \text{I}_2 \rightleftharpoons 2 \text{HI}$ OR $\text{H}_2 + \text{I}_2 = 2 \text{HI}$
Chemical equation	Write the net-ionic equation: $\text{Pb}(\text{NO}_3)_2(\text{aq}) + 2 \text{K}_2\text{SO}_4(\text{aq}) \rightarrow \text{PbSO}_4(\text{s}) + 2 \text{KNO}_3(\text{aq})$			



OR



Tip #4: Use spaces and parentheses to make your work clear.

Symbolic notation	$24.0 \text{ g C} \times \frac{1 \text{ mol C}}{12.0 \text{ g C}} \times \frac{2 \text{ mol Cl}_2}{1 \text{ mol C}} = 4.00 \text{ mol Cl}_2$
Keyboarded	$24.0 \text{ g C} * (1 \text{ mol C} / 12.0 \text{ g C}) * (2 \text{ mol Cl}_2 / 1 \text{ mol C}) = 4.00 \text{ mol Cl}_2$
Symbolic notation	$K_p = \frac{(P_{\text{HI}})^2}{(P_{\text{H}_2})(P_{\text{I}_2})}$
Keyboarded	$K_p = (\text{P sub HI})^2 / ((\text{P sub H}_2)(\text{P sub I}_2))$ OR $K_p = (\text{P}_\text{HI})^2 / ((\text{P}_\text{H}_2)(\text{P}_\text{I}_2))$