pH of mixed solutions

Solution	pH
pH acide fort	$pH = -\log\left[H_3O^+\right]$
pH base forte	$pH = 14 + \log C_b$ $pOH = -\log\left[OH^-\right]$ **pH + pOH = 14** **$[H_3O^+] \times [OH^-] = K_e = 10^{-14}$**
pH acide faible	$pH = \frac{1}{2}(pK_a - \log C)$
pH base faible	$pH = 14 - \frac{1}{2}(pK_b + \log C_b)$ $pH = 7 + \frac{1}{2}(pK_a + \log C_b)$ **$pK_a + pK_b = pK_e = 14$**
Mélange : acide fort (AH_1)+ acide fort (AH_2)	$\left[H_3O^+\right] = C_{AH_1} + C_{AH_2}$ $pH = -\log\left(C_{AH_1} + C_{AH_2}\right)$
Mélange : acide fort (AH_1)+ acide faible (AH_2)	$\left[H_3O^+\right] = C_{AH_1} + C_{AH_2} \approx C_{AH_1}$ $pH = -\log\left(C_{AH_1}\right)$
Mélange : acide faible (AH_1)+ acide faible (AH_2)	$\left[H_3O^+\right] == \left(K_{a_{AH1}} C_{AH_1} + K_{a_{AH2}} C_{AH_2}\right)^{\frac{1}{2}}$ $pH = -\frac{1}{2}\log\left(K_{a_{AH_1}} C_{AH_1} + K_{a_{AH2}} C_{AH_2}\right)$
Mélange : base forte (B_1)+ base forte (B_2)	$pH = 14 + \log\left(C_{B_1} + C_{B_2}\right)$
Mélange : base forte (B_1)+ base faible (B_2)	$pH = 14 + \log\left(C_{B_1}\right)$
Mélange : base faible (B_1)+ base faible (B_2)	$pH = 7 + \frac{1}{2}\log\left(\frac{C_{B_1}}{K_{a_{B_1}}} + \frac{C_{B2}}{K_{a_{B2}}}\right)$
pH amphotère محلول مذ بذ ب	$pH = \frac{1}{2}\log\left(pK_{a_{AH_1}} + pK_{a_{AH2}}\right)$
pH Solution tampon	$pH = pK_a + \log\left(\frac{[Base]}{[Acide]}\right)$