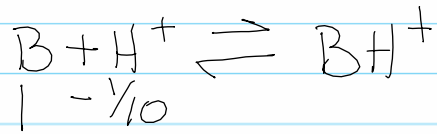


$$a) V_a = 1 \text{ ml}$$



$$1 - \frac{1}{10}$$

$$\frac{9}{10}$$

$$\frac{1}{10}$$

$$pK_a \text{ } BH^+ = 14 - 5 = 9$$

$$pH = 9 + \log \frac{[\frac{9}{10}]}{[\frac{1}{10}]}$$

$$pH = 9.95$$