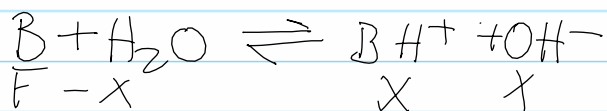


$$10.14) \text{ equivalence } \times \frac{.1M}{1000} \times 100m \times \frac{1000m}{1.00M} = 10m$$

$$a) V_a = 0$$



$$\frac{x^2}{F-x} = K_b$$

$$K_b = \frac{10^{-5}}{10} = pK_b$$

$$\frac{x^2}{0.1-x} = 10^{-5}$$

$$x = 9.95 \times 10^{-4} \quad [OH^-]$$

$$H^+ = \frac{K_w}{[OH^-]} = \frac{10^{-14}}{9.95 \cdot 10^{-4}} = 1.01 \times 10^{-11} M$$

$$-\log 1.01 \times 10^{-11} M$$
$$pH = 11$$