

Answer on Question #53090 – Chemistry – General chemistry

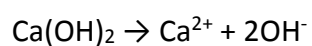
Determine the pH of a 0.11M solution of $\text{Ca}(\text{OH})_2$.

Solution:

$$pH + pOH = 14$$

$$pH = 14 - pOH$$

$$pOH = -\log[\text{OH}^-]$$



$$[\text{OH}^-] = 2 \cdot [\text{Ca}^{2+}] = 2 \cdot 0.11 \text{ M} = 0.22 \text{ M}$$

$$pOH = -\log 0.22 = 0.658$$

$$pH = 14 - 0.658 = 13.342$$

Answer: 13.342