Sample problem: dissociation of water

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Solution:

$$[H_3O^{1+}]\,[OH^{1-}] = K_w$$

$$(4.7 \times 10^{-9})\,[OH^{1-}] = 1.0 \times 10^{-14}$$

$$[OH^{1-}] = 2.1 \times 10^{-6}$$