

## Answers to Section 2 Review page 511

### Answers to Section 2 Review, continued

- solids, pure liquids, and solvents; because the concentrations of such species do not change their during a reaction
- $K_{sp}$  can be assigned to salts that are slightly soluble in water and to similar hydroxides.
- $K_{sp}$  does not apply to salts that are very soluble in water.
- $K_{eq} = 54.3 = \frac{[\text{HI}]^2}{[\text{H}_2][\text{I}_2]}$ ;  $[\text{HI}]^2 = (54.3)(4.79 \times 10^{-4})^2$ ;  
 $[\text{HI}] = 3.53 \times 10^{-3}$
- $K_{sp} = 1.3 \times 10^{-36} = [\text{Cu}^{2+}][\text{S}^{2-}]$ ;  $[\text{Cu}^{2+}] = 1.1 \times 10^{-18}$
- $\text{C}(s) + \text{CO}_2(g) \rightleftharpoons 2\text{CO}(g)$ ;  $K_{eq} = \frac{[\text{CO}]^2}{[\text{CO}_2]} = \frac{(0.10/2.0)^2}{(0.20/2.0)} = 2.5 \times 10^{-2}$
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- $K_{sp} = [\text{Al}^{3+}][\text{OH}^-]^3$