

**Guided Responses for TAKS Self-Check Exam Practice IPC TEKS 9A, 9B, and 9C
TX BDOL p TX24**

7. An experiment shows that an acid dissolved in water conducts electricity. If more acid is added to the solution, which of the following best describes what will happen? **(IPC 9B)**

A) The electrical conductivity will increase because the concentration of ions increases.

Solution An acid is an electrolyte because it forms ions when it is dissolved. When electrodes are placed in a solution containing ions, the ions can move toward the oppositely charged electrodes, causing an electric current to flow. As the ion concentration increases, the number of ions that can flow also increases. This causes the current to increase. Therefore the electrical conductivity of an ionic solution increases as the concentration of ions increases.

8. Which of the following increases the rate at which a solid solute dissolves in a solvent? **(IPC 9D)**

G) stirring the solution

Solution The rate of solution can be increased by increasing the temperature, decreasing the size of the solute particles, or stirring the solution. Increasing the pressure has little effect on the solubility of a solid.