**Line-Follower Challenge Pre-Quiz Answer Key**

1. **How does the light sensor work? Does the light sensor detect white or black as a higher amount of light reflectivity? Absorbance?**

**The light sensor sends out light from one side and using a sensor next to it to detect the light that comes back after being reflected by the surface the light hits.**

**White objects reflect most of the light whereas dark objects reflect very little light. Thus, a higher reading of the light sensor means that more of the light is reflected.**

**Looking at it another way, darker objects absorb more light so that less is available for being reflected. That is, more absorption means less reflectance.**

1. **Can you think of method to have the robot follow the line using turns? Describe how it would work.**

**The two main program commands used are:**

**1. If the light sensor detects a whitish color, program the robot to turn in a certain direction.**

**2. If the light sensor detects a darkish color, program the robot to turn in the opposite direction.**

**With this technique, the robot can be made to follow the edge of a line.**