Answer #55

The answer is (a): the bulb in the primary will glow more brightly, as seen in the photograph at the right below. The case before the secondary bulb is switched into the circuit is shown at the left for comparison.



Even with no secondary current, the impedance of the primary coil is sufficiently low to draw enough primary current to light the primary light bulb. As seen in the photograph at the right, the secondary bulb is just barely glowing, but this requires enough additional current in the primary to make the primary bulb glow significantly more brightly.

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For questions and comments regarding the *Question of the Week* contact <u>Dr. Richard E. Berg</u> by e-mail or using phone number or regular mail address given on the <u>Lecture-Demonstration Home Page</u>.