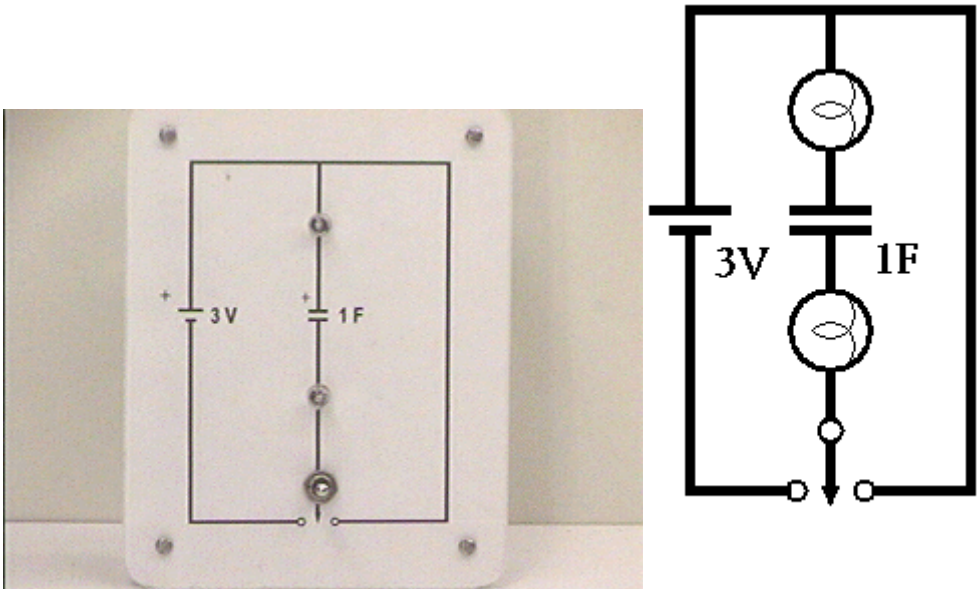
Question #75

As discussed in the previous *Question of the Week* and seen in the jpeg by clicking your mouse on the photograph below, when the switch is closed by pushing it to the left the capacitor charges. The current produced starts large and decreases exponentially, so the light bulbs go on brightly and their intensity decreases exponentially to zero.



The question this week regards what happens after the capacitor is fully charged, and the switch is then closed to the right, completing the right side of the circuit as seen in the drawing at the right above.

When the switch is closed, connecting the circuit, what will happen?

- (a) both lamps will light.
- (b) only the upper lamp will light.
- (c) only the lower lamp will light.
- (d) neither lamp will light.

If one of the lamps were to light, it will:

- (a) go on and stay on at the same brightness.
- (b) go on brightly and decrease its intensity to a constant zero level.
- (c) go on dimly and increase its intensity to a constant bright level.

Click here for Answer #75 after July 30, 2001.

Question of the Week

Outreach Index Page

Lecture-Demonstration Home Page

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