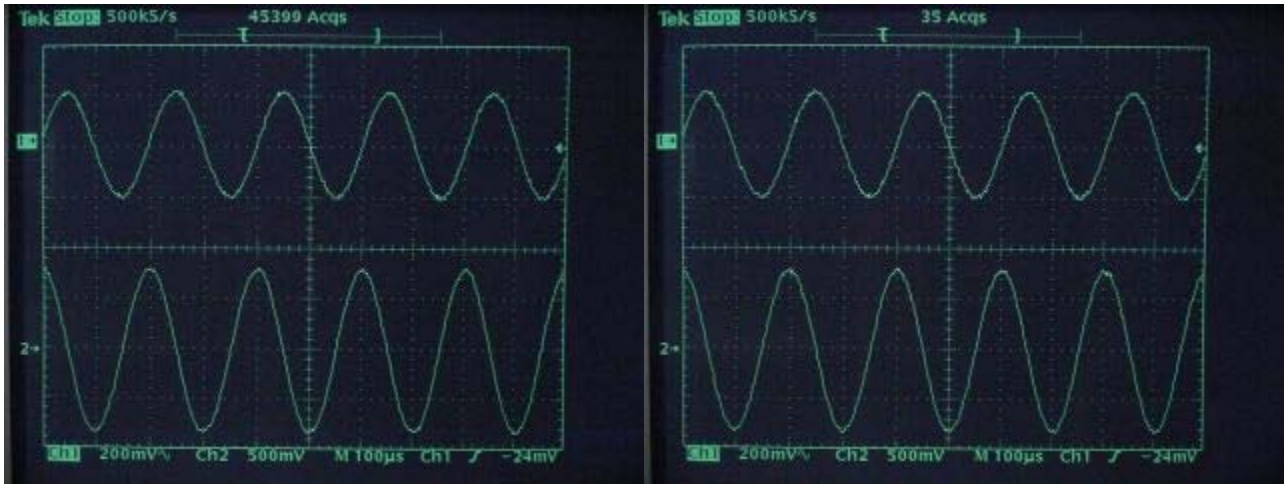
Answer #270

The answer is (c): the same as the voltage induced in the square coil, as seen in the photographs below. In the photograph at the left, current in the round coil produces a changing magnetic field, inducing a voltage in the square coil. In the photograph at the right, current in the square coil produces a changing magnetic field, inducing a voltage in the round coil.



Can you see the difference? Neither can I.

According to the idea of mutual induction, either of the two coils can be used as the primary, in which the current flows, or the secondary, in which the voltage is induced. The situation is entirely symmetric.

Archive 14

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.