

13 Electromagnetic induction and flux – Part 1 —Answers

Answers

Work through these after you have tried the questions yourself.

2.1 the magnetic flux through it must change (for example, a magnet moving in or out).

2.2 how much magnetic field passes through a loop (the field times the loop's area).

2.3 $\frac{0.030 - 0.010}{0.040} = \frac{0.020}{0.040} = 0.50 \text{ V}.$

2.4 any two of: the field strength, the loop's area, the loop's angle to the field.

2.5 with the magnet still, the flux is constant, so there is no change in flux and therefore no induced voltage.