

# Chapter 16

## Induction

- 16.1 (a) It would be directed the other way (toward the left through the ammeter as the magnet is brought in from the left), (b) It would be directed the other way (toward the left through the ammeter as the magnet is brought in from the left and toward the right through the ammeter as the magnet is taken away to the left)
- 16.2 The induced current doubles
- 16.3 (a) 0.7854 V (remember to calculate area in square meters from the radius), (b) 0.3927 A
- 16.4  $2.7 \times 10^{-2}$  V
- 16.5 (a)  $1.99 \times 10^{-2}$  H, (b) 0.955 V, (c)  $1.2 \times 10^{-3}$  A, (d) 1250  $\Omega$ , (e)  $1.2 \times 10^{-3}$  A, (f) the same