

### **Chapter 30 – Suggested problems**

4, 9, 26, 28, 29, 31, 54, 67, 72

### **Solutions of even suggested problems**

- (4) (a)  $5.68 \times 10^{-8} \text{ Wb}$   
(b)  $1.18 \times 10^{-5} \text{ H}$   
(c)  $-0.0207 \text{ V}$

- (26) (a)  $t = 0, I = 0 \rightarrow V_{ab} = 0, V_{bc} = 60 \text{ V}$   
(b)  $t \rightarrow \infty, i \rightarrow \epsilon/R, di/dt \rightarrow 0, V_{ab} \rightarrow 60 \text{ V}, V_{bc} \rightarrow 0$   
(c)  $i = 0.15 \text{ A}, V_{ab} = 36 \text{ V}, V_{bc} = 24 \text{ V}$

- (28) (a)  $f = 2.13 \text{ kHz}$   
(b)  $U = 0.225 \text{ J}$   
(c)  $Q = 3 \times 10^{-3} \text{ C}, i = -39.92 \text{ A}, U = 0.223 \text{ J}$

- (54) (a)  $5 \times 10^{-3} \text{ J}$   
(b)  $-4.52 \text{ W}$   
(c)  $4.52 \text{ W}$   
(d)  $5 \times 10^{-3} \text{ J}$

- (72) (a)  $0.6 \text{ A}$   
(b)  $t = 8.49 \times 10^{-4} \text{ s}$