PROBLEM SHEET 4

ANSWERS

1. a) 320 kΩ; b) 16 kΩ; c) 800 Ω; d) 16 Ω
2. a) 40 kΩ; b) 2 kΩ; c) 50 Ω; d) 0.8 Ω
3. a) 63 Ω; b) 1.3 kΩ; c) 25 kΩ; d) 1.3 MΩ
4. a) 250 Ω; b) 7.5 kΩ; c) 63 kΩ
5. a) $X_C = 400$ Ω; $X_L = 1$ kΩ; $X = 600$ Ω; $Z = 1$ kΩ; $\varphi = 37^0$, voltage leads current

    b) $X_C = 880$ Ω; $X_L = 230$ Ω; $X = 650$ Ω; $Z = 720$ Ω; $\varphi = 65^0$, voltage lags current