

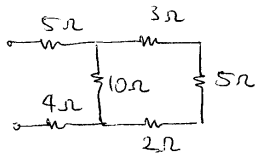
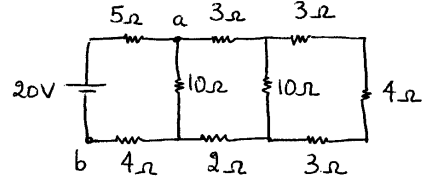
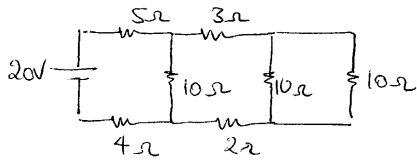
Physics 102-Rec  
 Quiz # 7  
 Chapter 28

Date: 12 May 2002

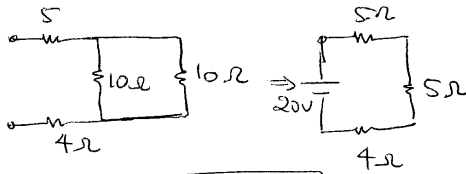
Name: Key Id: \_\_\_\_\_ Sect: \_\_\_\_\_

Consider the circuit shown in the figure. Calculate:

(a) The equivalent resistor.



⇒



$$R_{eq} = 14 \Omega$$

(b) The current in the 4 Ω resistor.

$$20V = 14 I \Rightarrow I = \frac{20}{14} = 1.4 A$$

$$I_{4\Omega} = 1.4 A$$

(c) The potential difference  $V_b - V_a$ .

$$V_b - V_a = + 5 I - 20 = + 5 \times 1.4 - 20 = -13 V$$