

**Physics 102-Rec**  
**Quiz #7**  
**Chapter 28**

Date: 14 May 2002

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

Consider the circuit shown in the figure. Calculate:

- (a) The current in the  $10\ \Omega$  resistor.

The resistance between points a and b is infinite.

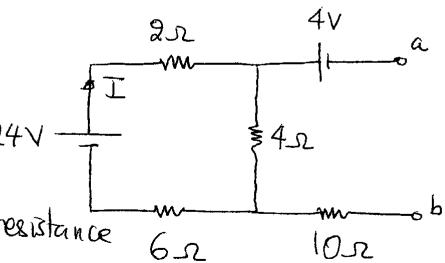
$\Rightarrow$  no current in the  $10\ \Omega$  resistance

$$\boxed{I = 0}$$

- (b) The current in the  $6\ \Omega$  resistor.

$$24 = 12 I \Rightarrow I = 2\ A$$

$$\boxed{I_{6\Omega} = 2\ A}$$



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

$$V_b - V_a = 4 - 4 \times 2 = \boxed{-4\ V}$$