

Key: pg. 301 # 8-13 (omit 11)

8. 300V

9. 0.10A

10. 4500 Ω or 4.5 k Ω

omit (11) 4300 Ω or 4.3 k Ω (accuracy of 10%)

12. When a resistor is added to a circuit it will transfer some of the electrical energy into other forms. This will leave less electrical energy for the light bulb; therefore it will be less bright.

13.



Key: pg 303

#26 - 31 (omit 30)

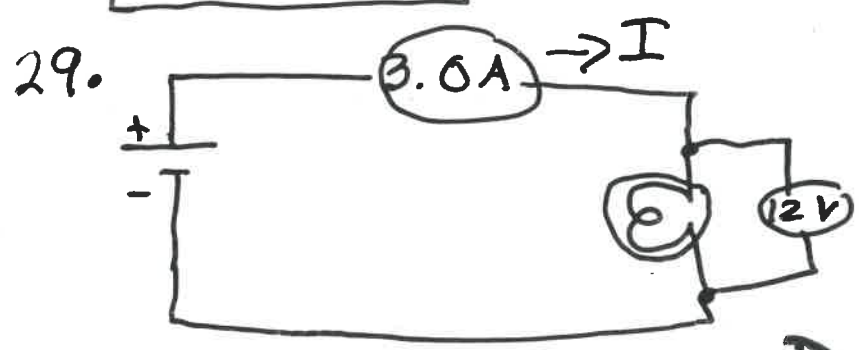
26. a) $400 \text{ mA} \times \frac{1 \text{ A}}{1000 \text{ mA}} = 0.4 \text{ A}$

b) $18 \text{ k}\Omega \times \frac{1000 \Omega}{1 \text{ k}\Omega} = 18000 \Omega$

c) $12 \text{ MV} \times \frac{1000000 \text{ V}}{1 \text{ MV}} = 12000000 \text{ V}$
or $1.2 \times 10^7 \text{ V}$

27. $R = 120 \Omega, I = 2.0 \text{ A}, U = ?$
 $V = 240 \text{ V}$

28. $I = 75 \text{ mA}, V = 12 \text{ V}, R = ?$
or 0.075 A
 $R = 160 \Omega$



$I = 3.0 \text{ A}$
 $V = 12 \text{ V}$
 $R = ?$

$R = \frac{V}{I} = \frac{12 \text{ V}}{3.0 \text{ A}} = 4 \Omega$

