

**“QUIZ” for Oct. 16, 2008**

**NAME:** (print!) \_\_\_\_\_ **Section:** \_\_\_\_\_

**E-MAIL ADDRESS:** (print!) \_\_\_\_\_

1. If three resistors with resistance  $R_1$  and  $R_2$  and  $R_3$  are connected in parallel, then the total resistance is given by

$$\frac{1}{R} = \frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3} \quad .$$

If  $R_1$ ,  $R_2$ ,  $R_3$  are increasing at a rate of 1, 2, and 3 ohms per sec. respectively, how fast is  $R$  changing when  $R_1 = 1$  and  $R_2 = 1/2$  and  $R_3 = 1/3$