# UNIVERSITY OF CALIFORNIA, BERKELEY <br> EE100 Summer 2008 Lab 1 <br> Introduction to Circuits and Instruments Prelab 

Name $\qquad$
Session/TA $\qquad$

1. Two resistors are connected in parallel to an ideal voltage source of 5 V . Choose the value of $R_{2}$ so that the total current going through $R_{1}$ and $R_{2}$ is 100 mA .

2. The examples given in the chart on page 4 are a $560 \mathrm{k} \Omega \pm 5 \% 4$-band resistor and a $237 \Omega \pm 1 \% 5$-band resistor. Try to verify the values yourself using the steps described there.
3. Derive the equation $R=\frac{V_{R} R_{m}}{V_{\text {test }}-V_{R}}$ shown in Figure 12 (a).
4. If $R_{L}$ is $150 \Omega$, and the signal generator display shows $V_{\mathrm{pp}}=1 \mathrm{~V}$, what is the actual peak to peak amplitude of the signal across $R_{L}$ ?

