

### **Chapter 5, Solution 2.**

The open-loop gain of an op amp is 100,000. Calculate the output voltage when there are inputs of  $+10\ \mu\text{V}$  on the inverting terminal and  $+20\ \mu\text{V}$  on the noninverting terminal.

### **Solution**

$$\begin{aligned} v_0 &= A v_d = A(v_2 - v_1) \\ &= 10^5 (20 - 10) \times 10^{-6} = \mathbf{1\text{V}} \end{aligned}$$