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**EX:** Perform the following calculations, and write the answers with appropriate prefixes (such as  $\mu$ , m, k, etc.) for engineering units:

a)  $v = 5.6 \text{ mA} \cdot 0.5 \text{ k}\Omega$

Note:  $V = A \cdot \Omega$

b)  $R = 1.2 \text{ k}\Omega + 700 \Omega$

**SOL'N:** a) The product of m and k is  $10^0 = 1$ . The product of A and  $\Omega$  is V.

$$v = 5.6 \text{ mA} \cdot 0.5 \text{ k}\Omega = 2.8 \text{ V}$$

b) We may convert the  $1.2 \text{ k}\Omega$  to  $1200 \Omega$  and add  $700 \Omega$ , or we may convert the  $700 \Omega$  to  $0.7 \text{ k}\Omega$  and add  $1.2 \text{ k}\Omega$ . Either approach is acceptable, although the latter yields a result that is already in appropriate engineering format.

$$R = 1.2 \text{ k}\Omega + 700 \Omega = 1.9 \text{ k}\Omega$$