
Ex: Perform the following calculations, and write the answers with appropriate prefixes (such as μ , 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 Ω 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 1200Ω and add 700Ω , or we may convert the 700Ω 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.

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