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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)  $p = 2.3 \mu\text{A} \cdot 110 \text{ kV}$

Note:  $\text{V} \cdot \text{A} = \text{W}$

b)  $R = 1.3 \text{ M}\Omega + 200 \text{ k}\Omega$

**SOL'N:** a) The product of  $\mu$  and k is  $10^{-3} = \text{m}$ . The product of A and V is W.

$$p = 2.3 \mu\text{A} \cdot 110 \text{ kV} = 253 \text{ mW}$$

b) We convert the 200 k $\Omega$  to 0.2 M $\Omega$  and add 1.3 M $\Omega$ .

$$R = 1.3 \text{ M}\Omega + 0.2 \text{ M}\Omega = 1.5 \text{ M}\Omega$$