

$$\begin{aligned} \boxed{1/12} \quad \text{SI: } [\Phi] &= (1)(\text{kg})(\text{m}^2)/\text{s}^2 \\ &= \text{kg} \cdot \text{m}^2/\text{s}^2 \\ \text{U.S.: } [\Phi] &= (1)(\text{slug})(\text{ft}^2)/\text{sec}^2 \\ &= \left(\frac{\text{lb} \cdot \text{sec}^2}{\text{ft}}\right)(\text{ft})^2/\text{sec}^2 = \underline{\text{lb} \cdot \text{ft}} \end{aligned}$$

Note: The SI units reduce to

$(\text{kg} \cdot \text{m}/\text{s}^2) \text{m} = \text{N} \cdot \text{m}$, but N is not a base unit.

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