

PROBLEM 1-4

Statement: Convert a mass of 1 000 lbm to (a) lbf, (b) slugs, (c) blobs, (d) kg.

Units: $blob := \frac{lbf \cdot sec^2}{in}$

Given: Mass $M := 1000 lb$

Solution: See Mathcad file P0104.

1. To determine the weight of the given mass, multiply the mass value by the acceleration due to gravity, g.

$$W := M \cdot g \qquad W = 1000 \cdot lbf$$

2. Convert mass units by assigning different units to the units place-holder when displaying the mass value.

$$\text{Slugs} \qquad M = 31.081 \cdot slug$$

$$\text{Blobs} \qquad M = 2.59 \cdot blob$$

$$\text{Kilograms} \qquad M = 453.592 \cdot kg$$