
$$\boxed{1/5} \quad m = \frac{W}{g} = \frac{3000}{32.174} = \underline{93.2 \text{ slugs}}$$

$$m = 93.2 \text{ slugs} \left(\frac{14.594 \text{ kg}}{\text{slug}} \right) = \underline{1361 \text{ kg}}$$

↑ from Table D/5

To illustrate the sensitivity of such calculations to significant-figure issues,

we now use $g = 32.2 \text{ ft/sec}^2$:

$$m = \frac{W}{g} = \frac{3000}{32.2} = 93.2 \text{ slugs} \checkmark$$

$$m = 93.2 (14.594) = 1360 \text{ kg} !$$

The value of $g = 32.2 \text{ ft/sec}^2$ will normally, but not always, suffice.

WILEY