

EXERCISES

1. How many seconds are there in 1 day?
2. How long is a 100-m dash in yards if $1 \text{ m} = 1.094 \text{ yd}$?
3. How many inches are there in 1 m?
4. Write each of the following numbers in powers-of-tens notation:
 - a. 68,200 m
 - b. 0.000 000 000 456 g
5. Write each of the following numbers as ordinary numbers:
 - a. $3.48 \times 10^3 \text{ s}$
 - b. $1.11 \times 10^{-5} \text{ kg}$
6. Complete the following computations:
 - a. $(2.7 \times 10^{-3}) \times (2.3 \times 10^4)$
 - b. $\frac{9.6 \times 10^6}{3.0 \times 10^{-3}}$
7. How many kg are there in a $12.5 \mu\text{g}$ sample?
8. 96 km/hr is how many m/s?
9. The sun is 92 million miles from the earth. How many minutes does it take for a light wave to reach the earth from the sun.
10. Iron has a mass of 7.87g per cubic centimeter of volume, and the mass of an iron atom is $9.27 \times 10^{-26} \text{ kg}$. If the atoms are spherical and tightly packed,
 - a) what is the volume of an iron atom and
 - b) what is the distance between the centers of the adjacent atoms?