

**Exercise 1.32**

Use appropriate metric prefixes to write the following measurements without use of exponents:

- (a)  $2.3 \times 10^{-10}$  L, (b)  $4.7 \times 10^{-6}$  g, (c)  $1.85 \times 10^{-12}$  m, (d)  $16.7 \times 10^6$  s, (e)  $15.7 \times 10^3$  g,  
(f)  $1.34 \times 10^{-3}$  m, (g)  $1.84 \times 10^2$  cm.
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**Solution**

The SI prefixes are listed on page 18.

(a)  $2.3 \times 10^{-10}$  L = 0.23 nL

(b)  $4.7 \times 10^{-6}$  g = 4.7  $\mu$ g

(c)  $1.85 \times 10^{-12}$  m = 1.85 pm

(d)  $16.7 \times 10^6$  s = 16.7 Ms

(e)  $15.7 \times 10^3$  g = 15.7 kg

(f)  $1.34 \times 10^{-3}$  m = 1.34 mm

(g)  $1.84 \times 10^2$  cm = 1.84 m