Exercise 44

Express each of the following numbers in scientific notation with correct significant figures:

(a) 711.0

(b) 0.239

(c) 90743

(d) 134.2

(e) 0.05499

(f) 10000.0

(g) 0.000000738592

Solution

The leading number has to be less than 10 and greater than or equal to 1.

(a) $711.0 = 7.110 \times 10^2$

(b) $0.239 = 2.39 \times 10^{-1}$

(c) $90743 = 9.0743 \times 10^4$

(d) $134.2 = 1.342 \times 10^2$

(e) $0.05499 = 5.499 \times 10^{-2}$

(f) $10000.0 = 1.00000 \times 10^4$

(g) $0.000000738592 = 7.38592 \times 10^{-7}$