

Exercise 45

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

- (a) 704
- (b) 0.03344
- (c) 547.9
- (d) 22086
- (e) 1000.00
- (f) 0.0000000651
- (g) 0.007157

Solution

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

- (a) $704 = 7.04 \times 10^2$
- (b) $0.03344 = 3.344 \times 10^{-2}$
- (c) $547.9 = 5.479 \times 10^2$
- (d) $22086 = 2.2086 \times 10^4$
- (e) $1000.00 = 1.00000 \times 10^3$
- (f) $0.0000000651 = 6.51 \times 10^{-8}$
- (g) $0.007157 = 7.157 \times 10^{-3}$