Exercise 51

The volume of a cube depends on the length of the sides s.

    a. Write a function $V(s)$ for the volume of a cube.

    b. Find and interpret $V(11.8)$.

Solution

<u>Part a.</u>

The volume of a cube is obtained by multiplying the length, width, and height together.

$$V(s) = s \times s \times s = s^3$$

<u>Part b.</u>

$V(11.8)$ is the volume of a cube if the side length is 11.8 units.

$$V(11.8) = (11.8)^3 \approx 1643 \text{ units}^3$$