

# Chapter 1

## Functions and Graphs

### Exercise Solution

#### Exercise 1.1.51

##### Instruction

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

- (a) Write a function  $V(s)$  for the volume of the cube.
- (b) Find an interpret  $V(11.8)$ .

##### Solution

- (a) A cube will have sides  $s$  of equal length. The volume is found by multiplying  $s$  three times

$$V(s) = s \cdot s \cdot s = s^3.$$

- (b) A cube with the side equal to 11.8 length units will have the volume

$$V(11.8) = 11.8^3 \approx 1643$$

cubic units.

##### Answer

- (a)  $V(s) = s^3$ .
- (b)  $V(11.8) = 11.8^3 \approx 1643$  cubic units.