

signed number  
size  
plain number  
quantitative  
sign  
qualitative

## Chapter 1

# Qualitative Analysis

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In this chapter, we revisit a number of concepts about *numbers* which the reader probably already encountered in one form or the other but which s/he should nevertheless carefully study, “pencil in hand”, because here they will be discussed in terms of how we will use them throughout this text.

### 1.1 Sign and Size

A signed number carries two very different pieces of information:

- a **size**, namely a **plain number**, that is an unsigned number, which is the **quantitative** part of the feature in that it indicates “how much” of the feature there is.

**NOTE.** Instead of the word “size”, textbooks mostly use “absolute value” but, sometimes, “numerical value” or “modulus” or “norm”. None of these words will be used in this text.

- a **sign**, namely  $+$  or  $-$ , which is the **qualitative** part of a “feature” in that it indicates “which way” the feature is going.