0.1 Subtraction

Subtraction with amounts

When removing a part of an amount, we use the symbol $-$:

$$5 - 3 = 2$$

The language box

A calculation involving subtraction includes one or more *terms* and one *difference*. In the calculation

$$5 - 3 = 2$$

both 5 and 3 are terms while 2 is the difference.

Common ways of saying $5 - 3$ include

- ”5 minus 3”
- ”3 subtracted from 5”

A new interpretation of 0

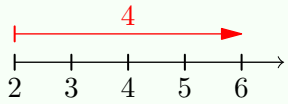
As mentioned earlier in this book, 0 can be interpreted as ”nothing”. However, subtraction brings the possibility of expressing 0 by other numbers, for example $7 - 7 = 0$ and $19 - 19 = 0$. In many practical situations, 0 indicates some form of equilibrium, like two equal but opposite forces.

Subtraction on the number line: Moving to the left

In *Section* **??**, we have seen that $+$ (with positive numbers) involves moving *to the right* on the number line. With $-$ it's the opposite, we move *to the left*[1]:

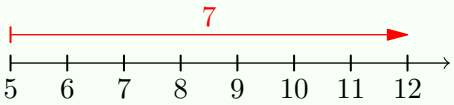
Example 1

$$6 - 4 = 2$$



Example 2

$$12 - 7 = 5$$



Notice

At first it may seem a bit odd moving in the opposite direction of the way in wich the arrows point, as in *Example 1* and *2*. However, in *Chapter* **??** this will turn out to be useful.

[1] In figures with number lines, the red colored arrows indicates that you shall start at the arrow head and move to the other end.