

# Elementary mathematics education in the Netherlands ca. 1800: New challenges, changing goals

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Around 1800 Dutch elementary mathematics education (10 to 15 years old) changed. The textbooks that were used in Dutch education, bear witness of that change. It is revealing to compare, for example, the immensely popular arithmetic textbook by Willem Bartjens (1569-1638), published for the first time in 1604, with a 19th century arithmetic textbook. The textbook by Bartjens [1] was re-issued over a hundred times until it was finally considered old-fashioned in the early 19th century. A comparable arithmetic textbook (comparable in the sense that it was destined to be used in schools for the same age group), was published in 1828 by the Leyden Mathematical Society *Mathesis Scientiarum Genitrix* [3]. This textbook –as any other 19th century arithmetic– could not compete in popularity with Bartjens, but it was similar to many other arithmetic textbooks printed at the time.

Of course there are obvious differences between the textbooks, as reflected in the introductions. Even some changes between the subjects treated can be noted. In 1828 the Dutch had adapted the metric system, so treatment of decimal fractions had become obvious, whereas Bartjens naturally devotes no attention to the subject. But apart from these, there are three more fundamental differences between the two textbooks, that reflect an entirely new view on education.

First of all there is a difference in the use of sections. For Bartjens (after a few preliminaries, notably the basic rules of arithmetic) sections are mainly used to distinguish rules needed by various professions. His education was aimed at the individual pupil. Until 1800 pupils payed exactly for the education they wanted to have: the merchant's son, who wanted to take over his father's business, would pay for learning French and the rules of trade he needed. The 1828 textbook uses new sections exclusively to distinguish between the various mathematical results and sections. Bartjens uses his sections exclusively to distinguish the various rules, whereas the 1828 textbook also refers to section numbers.