



Background

General didactic background

The lesson is based on practical experience that students have with bike riding and gear shifting.

Mathematical background

It is an independent lesson and it requires only basic understanding of *equations*, *line slope* and *ratio* of two natural numbers. The lesson can be adopted to avoid mentioning equations at all.

The idea of teaching implementation

Teachers are advised to thoroughly study the topic, as some of the ideas are very practical so the use of abstract concepts might seem unusual. Furthermore, we advise teachers to adopt the numbers obtained by regarding their own bicycles or even better, to bicycles that are brought to the lesson. In advance, students might be given the practical task of counting the teeth on the chainrings of their bicycles and measuring the sizes of their bikes in order to make the lesson as 'real life' as possible.

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