| Name: <br> Date: <br> Tools: on | pcs Set / class | 534 - Upside down Blocks in GeoGebra <br> MATHS / TRANSFORMATIONS | LOGIFACES METHODOLOG Erasmus+ STUDENT Logifaces |
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| DESCRIPTION |  |  |  |
| LEVEL 1 | Students start with the GeoGebra model of the block 123 (see exercises 526 - Calculate the Coordinates and 527 -Coordinates in GeoGebra). The task is to find transformations to move the block in such a way that the top face lies in the xy-plane, one edge lies on the $x$-axis, one vertex is in the origin and the whole block is contained in the upper half-space. |  |  |
| HINTS <br> - Recommended steps of transformations: reflection, rotation around a line, translation <br> - It is recommended to start with the model where the vertical edge of length 1 has coordinates $x=0, y=0$, and the vertical edge of height 3 has coordinates $x=4, y=0$. |  |  |  |
| LEVEL 2 | Students calculate the exact values of the coordinates of the block placed as in the Level 1 exercise. They can use the transformations to help the calculations. |  |  |

