

Grades 5-8 (S), 9-12 (S)

Duration: 20 min

Tools: one Logifaces Set / class

Individual work

Keywords: Planes of symmetry, Axes of symmetry

## 525 - Given Symmetries



### MATHS / TRANSFORMATIONS



LOGIFACES  
METHODOLOGY  
Erasmus+

## TEACHER

Logifaces

2019-1-HU01-KA201-0612722019-1

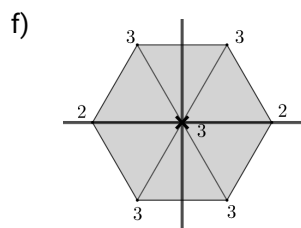
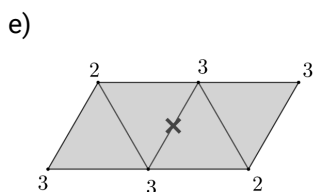
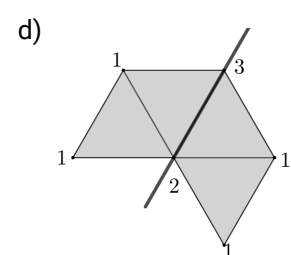
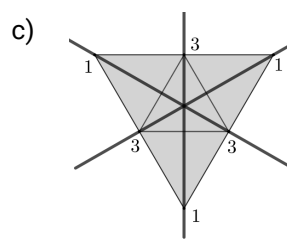
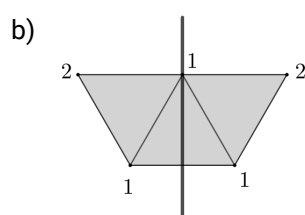
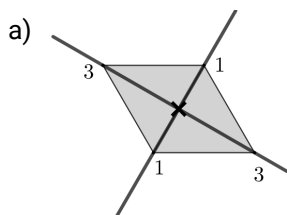
### DESCRIPTION

Students build continuous surface structures according to the given aspects. They use the given blocks and complement them with appropriate block(s) of their choice.

	Number of blocks	Block(s)	Number of the planes of symmetry	Axial symmetry
a)	2	113	2	yes
b)	3	111	1	no
c)	4	333	3	no
d)	4	112 and 123	1	no
e)	4	233	0	yes
f)	6	233 and 333	2	yes

### SOLUTIONS / EXAMPLES

The figure below shows an example of a correct arrangement for each question from aerial view. The planes and the axes of symmetry are drawn in the figures as lines and points. Other solutions are also possible.



#### PRIOR KNOWLEDGE

Properties of symmetry, Plane symmetry, Axial symmetry

#### RECOMMENDATIONS / COMMENTS

We recommend this exercise after [522 - Planes of Symmetry](#) and [523 - Symmetry of two Blocks](#), which are easier exercises.

Students tend to struggle with the concept of axial symmetry, we recommend going through the concept of central symmetry (reflection about a point) and axial symmetry (reflection about a line) before this exercise. Alternatively, the solution of task 3 can be presented as an example of a solid/construction, that has axial symmetry, but no rotational symmetry.