

Grade: 1-4 (S), 5-8 (S), 9-12 (S)

Duration: 10-20 min

Tools: one 9 pcs Set / 1-2 student

Individual / Pair work

Keywords: Regular prism

602 - Pairing 9pcs



MATHS / COMBINATORICS



LOGIFACES
METHODOLOGY
Erasmus+

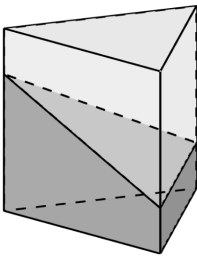
TEACHER

Logifaces

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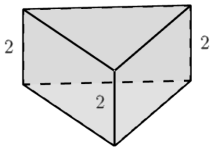
DESCRIPTION

Students arrange the blocks of the 9 pcs Set into pairs to form regular prisms by measuring and comparing edges and sides, see the diagram for an example.

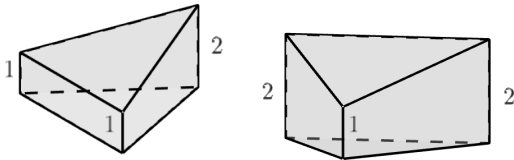


SOLUTIONS / EXAMPLES

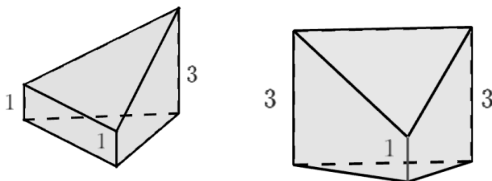
In the 9 pcs Set there is one block that is already a regular prism. That is block 222.



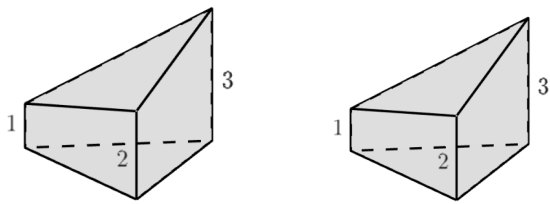
From the blocks 112 and 122 we get the regular prism 333.



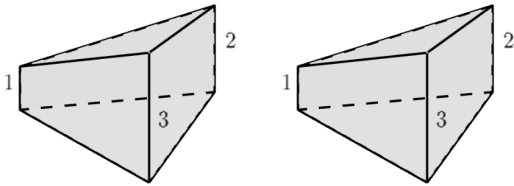
From the blocks 113 and 133 we get the regular prism 444.



From the blocks 123 and 123 we get the regular prism 444.



From the blocks 321 and 321 we get the regular prism 444.



Observe that the addition of the numbers $112+221=333$ seems like it works, but in the case of 123 and 321 it does not work: the blocks 123 and 321 do not form a regular prism, but the blocks 123 and 123 do. The reason is that in the formation of the prism from the blocks abc and def , one gets a prism with heights $a+f=b+e=c+d$. The addition $112+221$ works because the block 221 can also be written as block 122.

PRIOR KNOWLEDGE

Regular prism

RECOMMENDATIONS / COMMENTS

For students of grade 5-8 this can be a warm-up exercise before the more difficult combinatorics problems.

The task can be used to differentiate within a class.