

Good practices

MATH_120A_EN

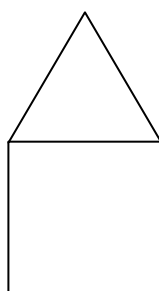
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Description of the problem / exercise: **House building**

Sets used: Triangle, square

We build a house out of a square and a triangle element. The plan of the house can be seen here:



The house must be built according to the following conditions.

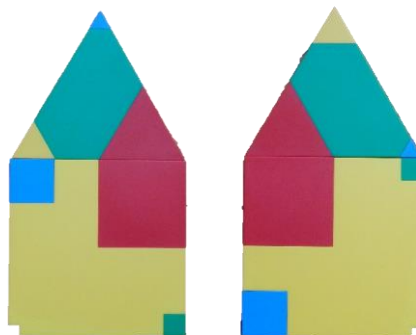
- The base colour of the square element is yellow.
- The medium size square is neither green nor red.
- The small shape of the square is not red.
- The base colour of the roof (triangle) is green and the small triangle shape is blue.
- The medium triangle of the roof is not red.

Tasks and questions related to the text:

1. Choose the elements according to the conditions and build the house with the same size connection. How many houses can be built if all conditions are met?
2. You can build more houses by modifying or omitting any of the given conditions.

Solutions:

1 triangle and 1 square element from the sets satisfy the given conditions. The elements can be used to build two different houses with same size connection.



- *Why this exercise is good: The exercise uses logical statements in a playful way. To select the correct element, several properties must be satisfied, which are given as logical statements. The elements of the set must be sorted, grouped according to the corresponding property.*
- *Which level is recommended: Lower-grades of elementary school (6-10 years)*
- *School subject(s): Mathematics*