

Good practices INTER_524A_EN

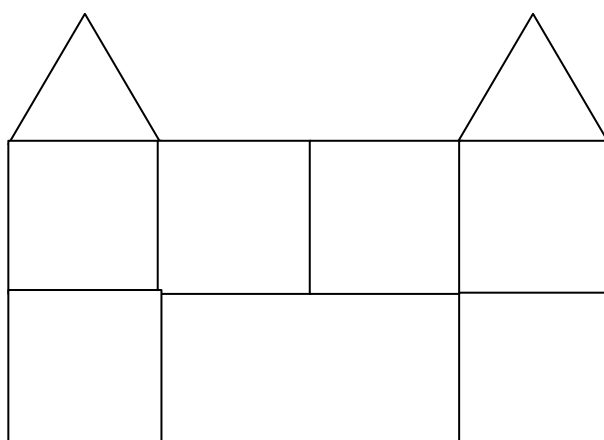
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Description of the problem / exercise: **Castle building**

Sets used: Triangle, square

The King of Fairy-tale Town wants to build a beautiful and modern castle for his soldiers. The plan of the castle can be seen here:



The king gave strict orders as to what conditions the architects had to take into account when building the castle:

- To build a strong castle, it is important that the connections of all the elements are the same size.
- The towers of the castle consist of two squares and a triangle of the same base colour. The base colour of the tower elements should be the same on both the left and right sides. When building the tower, the elements should match not only in size but also in colour.
- The bridge (two square elements) connecting the towers should have the same base colour, but different from the towers. The elements of the bridge and the tower are connected the same size.

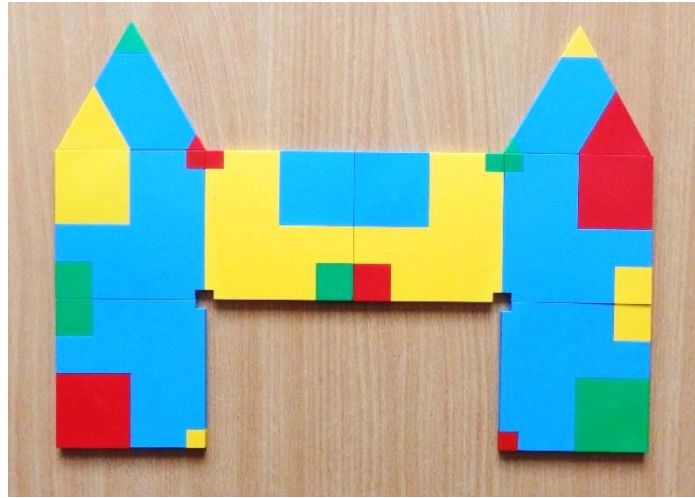
The King of Fairy-tale Town is looking for castle builders. Build the castle!

Tasks and questions related to the text:

1. Build a castle according to the king's orders!
2. Continue building, using the whole set of squares and triangles. Build as many castles as possible for the kingdom.
3. Design and build even bigger and stronger castles. You can use the complete sets.

Solutions:

1. One possible solution according to the conditions.



2. You can build 4 castles from 24 squares.



- *Why this exercise is good: Introduces different shapes and sizes to pupils in a playful way (construction). Based on the given criteria, the pupil has to group the elements, organise them and choose the one that meets the requirements. They have to look for several possible solutions.*
- *Which level is recommended: Lower-grades of elementary school (6-10 years)*
- *School subject(s): Mathematics, environment, technology*