



School:
Name of Student:
Sets: triangle, square (one set from both)
Further tools: paper, pencil
Date:

STUDENT
PUSE Task Number
BC
132

Description of the task:

We use the elements of the triangle set and the square set. We concentrate only on their shapes and not their colours. We will ignore the small missing square in the corner of the pieces of the square set.

- What is the measure of the angles of the Poly-Universe triangle? _____
- What is the sum of the angles of a triangle? _____
- What type of triangle is this? _____
- What can we say about its sides? _____

- Can we construct a quadrilateral using these triangles? _____
- Even in different ways? _____
- What is the measure of the angles of the quadrilateral? _____
- Why? _____
- And what is the sum of its angles? _____

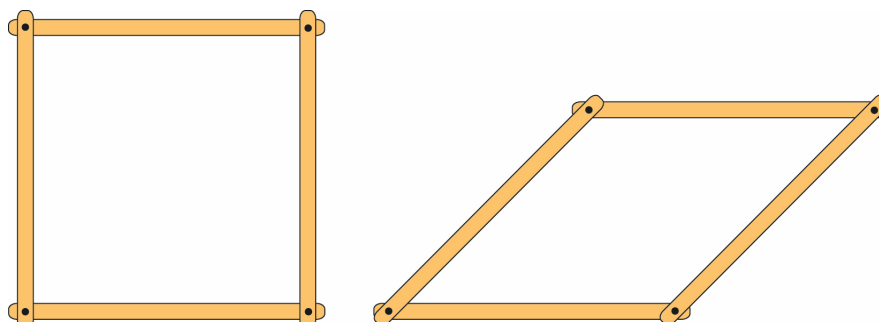
- What is the measure of the angles of a Poly-Universe square? _____
- What is the sum of its angles? _____

- Can we construct a pentagon using Poly-Universe triangles and squares? _____
- What is the measure of its angles? _____
- And the sum of its angles? _____

- Let's construct a regular hexagon using Poly-Universe triangles. Compare it with the hexagon within the triangle basic element. In what aspects are they similar? _____
- In what are they different? _____

- Is it true that if the angles of a quadrilateral are equal, their sides are equal as well? _____
- Is the reverse of this statement true:
If the sides of a quadrilateral are equal, are their angles equal as well? _____

The following figure helps:



- What can we say about the two statements above in the case of a triangle, a pentagon or a hexagon instead of a quadrilateral? _____
- Construct 'houses' of different shapes using the Poly-Universe triangles and squares. Check the measure of the angles in each case.
What is the sum of the angles in each 'house'? _____
- How many sides do these 'house' polygons have? _____

Some examples:



Solution(s) of the task:

Remarks / Self-evaluation: