

## Good practices

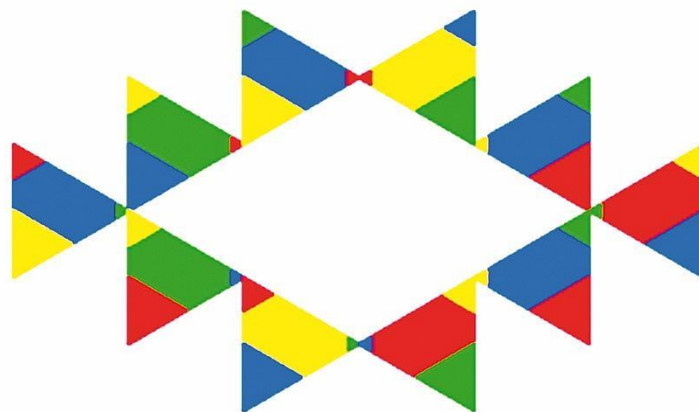
### PROG\_251\_CD\_EN

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

The task belongs to the topic of programming, algorithm building, and coordinate geometry.

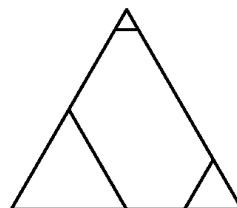
- Write a Python program using the Turtle library which will draw the following pattern made from Poly-Universe:



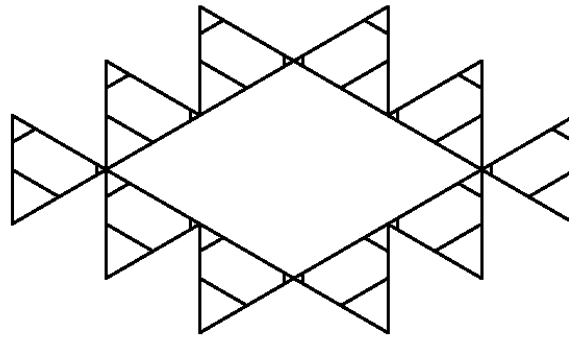
Turtle graphics is a popular way of introducing programming to students. It was part of the original Logo programming language developed by Wally Feurzeig, Seymour Papert, and Cynthia Solomon in 1967. The turtle package is a pre-installed Python library that enables users to create pictures and shapes by providing them with a virtual canvas. The onscreen pen that you use for drawing is called the turtle and this is what gives the library its name. To draw a picture by the Turtle library, intensive use of coordinate geometry is required.

The task requires some skills which will be introduced in the following sub-tasks:

- Draw the following pattern in Python using the Turtle library!



- Draw the following pattern in Python using the Turtle library!



- *Why this exercise is good:* This exercise improves algorithmic thinking, programming in Python, and vision in the x-y plane.
- *Which level is recommended:* Subject teacher, secondary school, IT training program
- *School subject(s):* Informatics