Description of the task:

In the previous task (225_C) we constructed rings of 6 basic element circles. In this task we move on and connect the rings with one another, paying attention to symmetries we found in 225. If we ignored colours and only observed sizes when connecting the elements, we could make rings with two types of symmetries. Let's say that rings with point symmetry have symmetry type "one", and rings with rotational symmetries of 120° and 240° (rings with 3 lines of symmetry) have symmetry type "two".

1. Construct a connected shape from the circle set with same size connections, connecting the rings.
2. How many different connected shapes can you construct? What is the maximum number of rings you can connect from one set, with which kind of layout?
3. Construct a connected shape of 7 rings with same colour and size connections.
4. Build a shape of the highest number of rings applying either type of symmetry only ("one" or "two"). Which type of symmetry connections leads to a solution?
5. Is it possible to construct a shape of the highest number of rings from one set if both types of symmetries can be applied (thus, we connect the elements randomly)?
6. Construct a connected shape of the highest number of rings from one set with complement connections (so, the base colour of the first element should be the same as the connecting semicircle of the second element). Is there a solution?

Solution(s) of the task:

Remarks / Self-evaluation: