

# Circles and polygons: star project

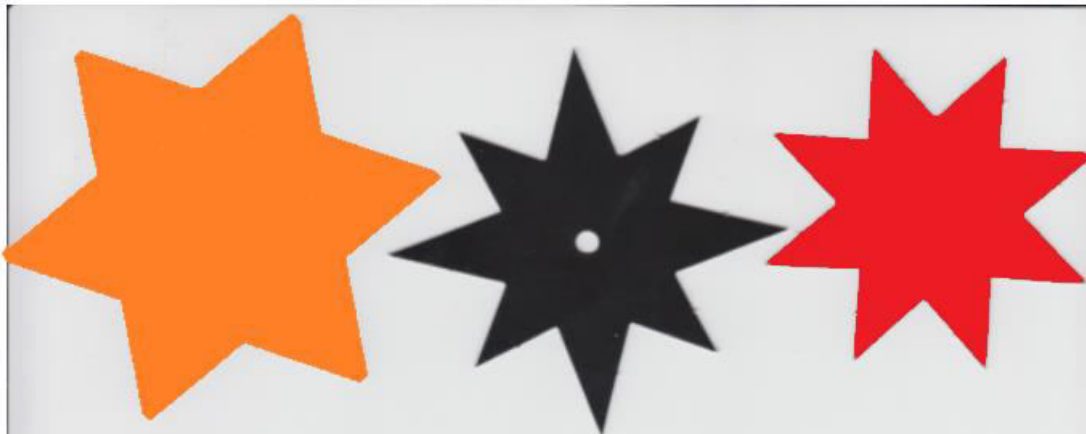
1. Mental geometry: think first - then follow your plan and create

a) Imagine first, you will fold a square. At the end you have to cut off the tip of a star. Which of the following stars can be created by folding and cutting off a tip?

- four-pointed star      six-pointed star      eight-pointed star  
 ten-pointed star      twelve-pointed star      sixteen-pointed star Stern

b) Now you can try out, which stars you can create by folding and cutting off a tip. You can use origami papers (squares). Could you manage to get the star that you had planned before?

2. Creating stars by stich art!



six-pointed (regular)

eight-pointed (irregular)

eight-pointed (irregular)

Choose with your partner one of the three forms. Wrap round coloured embroidery thread, so that different nice (symmetric) patterns come up.

### 3. Stars created with GeoGebra

Here you see examples of different ways to create stars with GeoGebra.

Try to create stars with different tips by using different ways.

