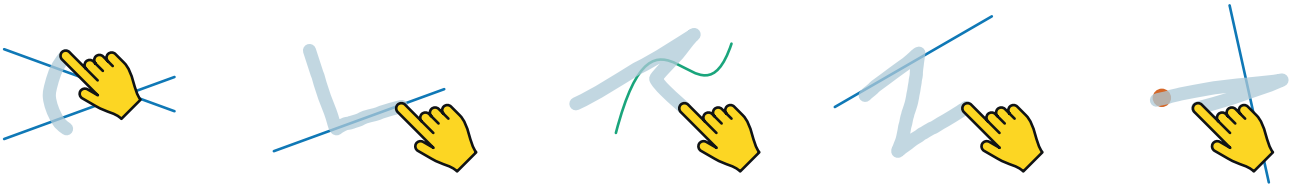
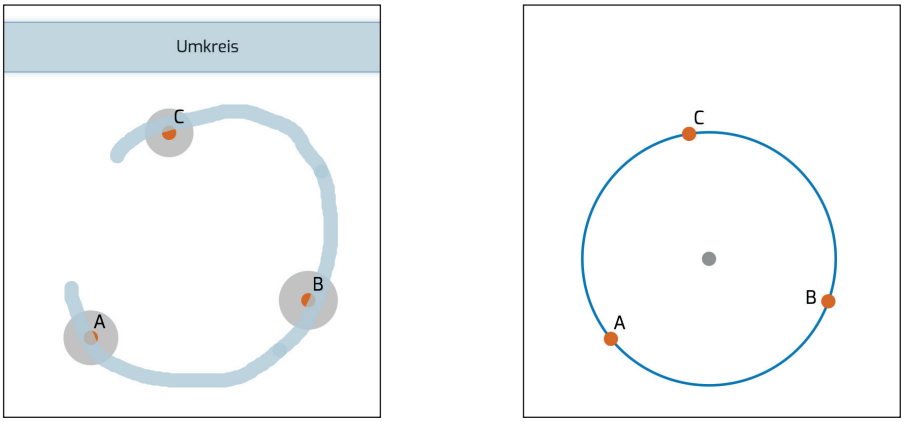
# 2 sketchometry with tablet or smartphone – an electronic sketchpad

Like pocket calculators, tablets and smartphones are valuable learning tools in math lessons when used sensibly. Students use these devices with sketchometry as an electronic sketchpad. With their index finger students draw figures which are automatically converted into an accurate representation. The sketchometry development team has made sure that these gestures are visually close to the object to be created (e.g. angle, perpendicular, tangent to a curve, parallel to a straight line, reflection on a straight line, ...). These gestures are intuitive for students and therefore easy to remember.



For example, if a circle is to be drawn through three given points, one indicates the circle with a corresponding gesture through the three points. The learners consciously make a circular movement with their index finger. As an “encore”, the programme creates the corresponding circle center at the same time as the circle line.




The fine-motor movements of the finger when sketching the gestures involve brain regions in the learning process that are not activated when clicking on an icon or an element of a menu list. This is because clicking is always the same process, regardless of which geometric activity is initiated. The gestures, on the other hand, differ from each other, depending on the desired construction.

Tablets and smartphones become a learning tool that students use to sketch and discover.