

## Angles

Solving triangles is a common programming calculation. These simple exercises illustrate typical angles used in drawings for CNC programming.

## ➡ 53-01a

Angle *A* is one half of the bisected angle:

$$A = 39^\circ / 2 = 19.5^\circ$$

## ➡ 53-01b

The sum of angles in a triangle is  $180^\circ$ . Angle *B* can be calculated as:

$$B = 180^\circ - 20.5121^\circ - 20.5121^\circ = 138.9758^\circ$$

The outside angle is correct, but totally irrelevant.

## ➡ 53-01c

This is the opposite calculation of the exercise 53-01a. Angle *C* is twice the given angle:

$$C = 2 \times 10.415^\circ = 20.83^\circ$$

## ➡ 53-01d

Neither angle nor a radius are necessary to calculate the angle *D*. The angle in a semicircle is always  $90^\circ$ :

$$D = 90^\circ$$