

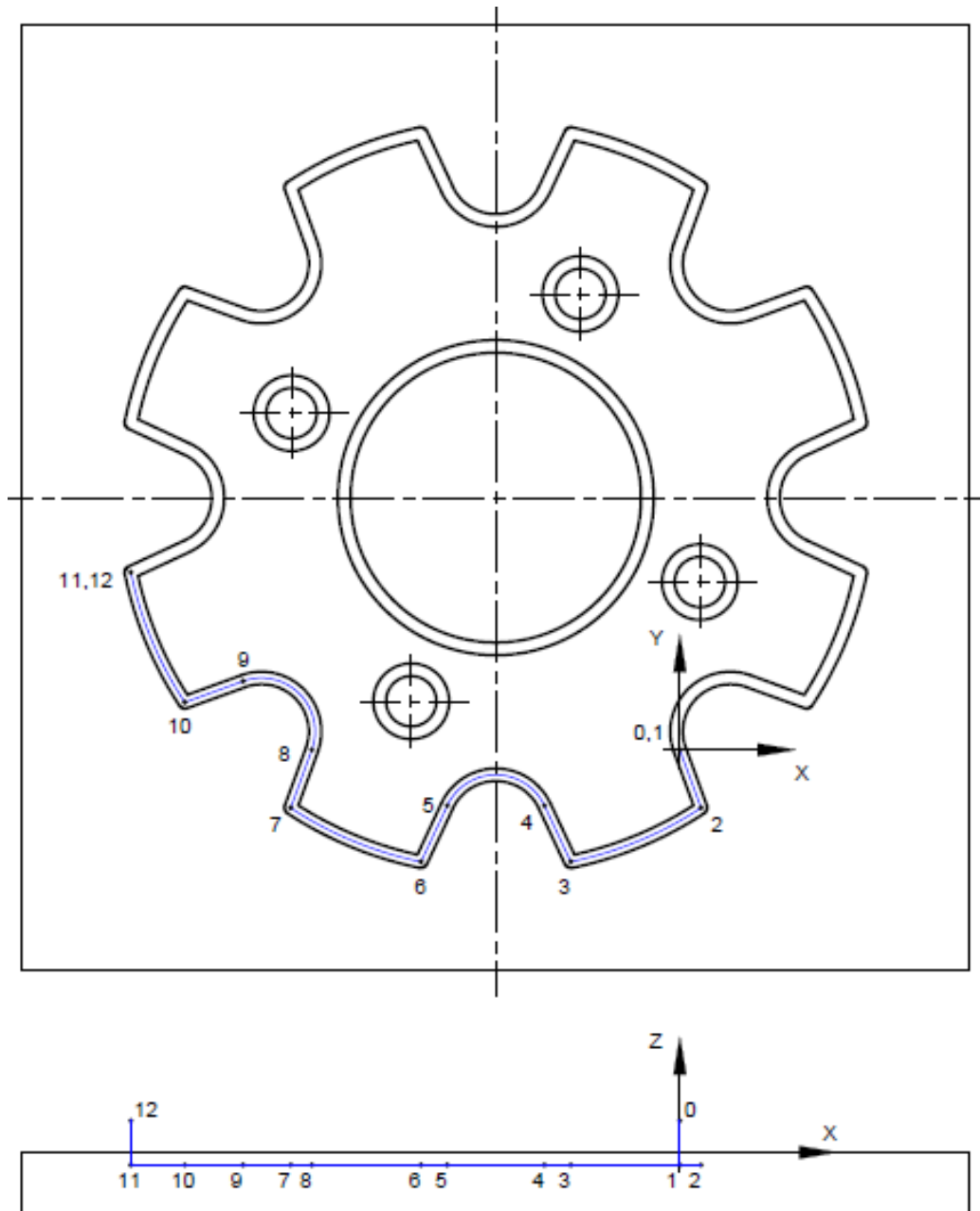
Field of education:
Mechanical engineering

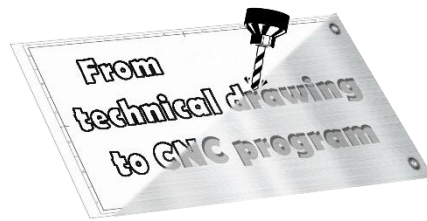
Professional qualification:
CNC operator

Exercise:
**Programming of CNC machine
(solution)**

Variant:
Task 51 – Sprocket 3.4.

Solution:





Required written code that should be inserted into the control unit:

G1 Z-2

X3,355 Y-9,218

G2 X-17,287 Y-17,768 R59

G1 X-21,432 Y-8,877

G3 X-36,839 R8,5

G1 X-40,985 Y-17,768

G2 X-61,626 Y-9,218 R59

G1 X-58,271 Y0

G3 X-69,166 Y10,895 R8,5

G1 X-78,384 Y7,54

G3 X-86,934 Y21,181 R59

G1 Z5

M30

Explanation of the G-code:

%Setting the coordinate system x=0, y=0, z=5; point 0

G1 Z-2 %Tool entry into material; point 1

X3,355 Y-9,218 %Straight milling; point 2

G2 X-17,287 Y-17,768 R59 %Radial milling; point 3

G1 X-21,432 Y-8,877 %Straight milling; point 4

G3 X-36,839 R8,5 %Radial milling; point 5

G1 X-40,985 Y-17,768 %Straight milling; point 6

G2 X-61,626 Y-9,218 R59 %Radial milling; point 7

G1 X-58,271 Y0 %Straight milling; point 8

G3 X-69,166 Y10,895 R8,5 %Radial milling; point 9

G1 X-78,384 Y7,54 %Straight milling; point 10

G3 X-86,934 Y21,181 R59 %Radial milling; point 11

G1 Z5 %Lifting of tool; point 12

M30 %End of program