

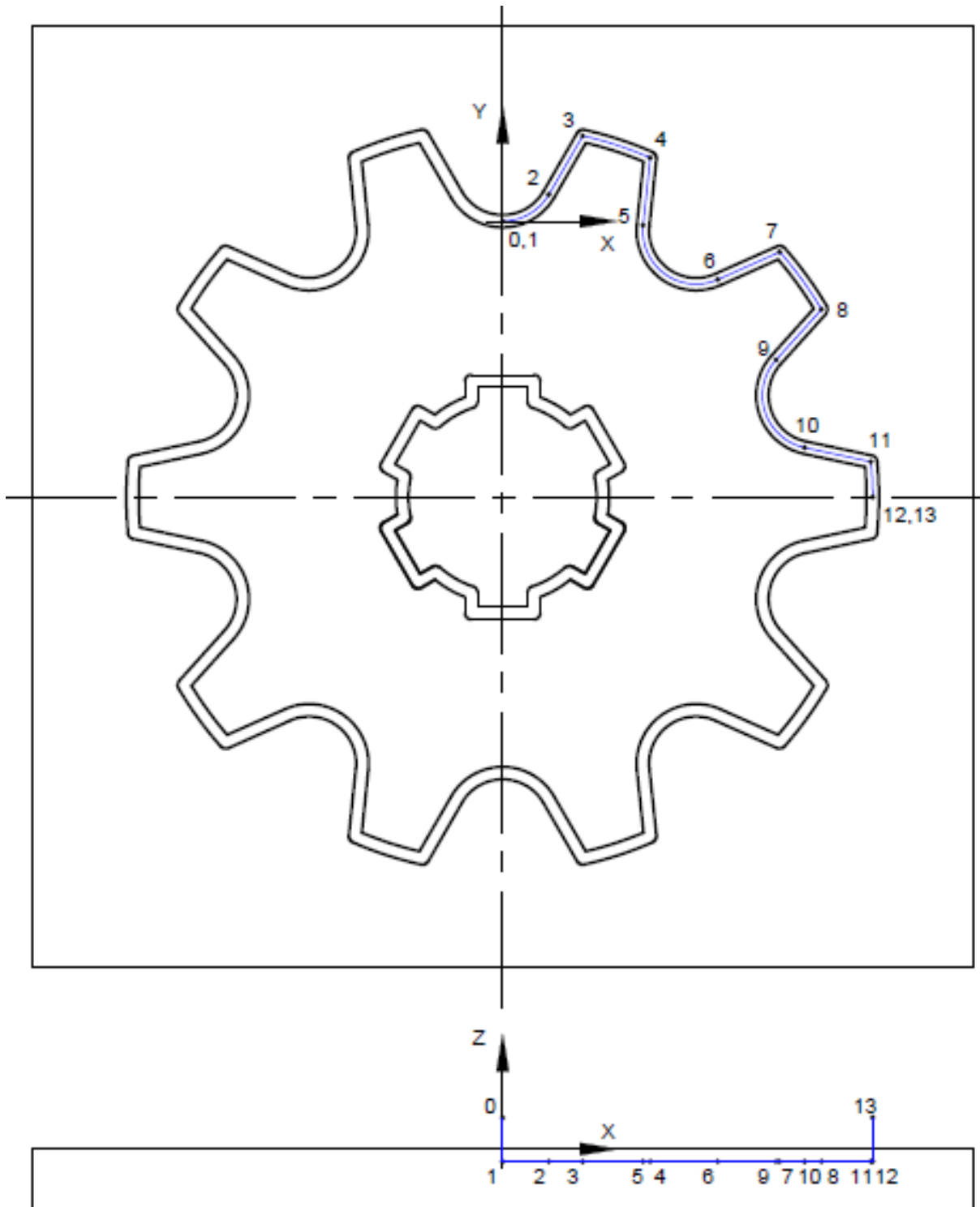
Field of education:
Mechanical engineering

Professional qualification:
CNC operator

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

Variant:
Task 38 – Sprocket 1.2.

Solution:



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

G1 Z-2

G3 X7,361 Y4,25 R8,5

G1 X12,761 Y13,603

G2 X23,534 Y10,103 R59

G1 X22,405 Y-0,638

G3 X34,316 Y-9,292 R8,5

G1 X44,183 Y-4,899

G2 X50,841 Y-14,063 R59

G1 X43,614 Y-22,089

G3 X48,163 Y-36,091 R8,5

G1 X58,728 Y-38,336

G2 X59 Y-44 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

G3 X7,361 Y4,25 R8,5 %Radial milling; point 2

G1 X12,761 Y13,603 %Straight milling; point 3

G2 X23,534 Y10,103 R59 %Radial milling; point 4

G1 X22,405 Y-0,638 %Straight milling; point 5

G3 X34,316 Y-9,292 R8,5 %Radial milling; point 6

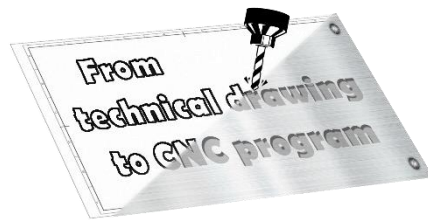
G1 X44,183 Y-4,899 %Straight milling; point 7

G2 X50,841 Y-14,063 R59 %Radial milling; point 8

G1 X43,614 Y-22,089 %Straight milling; point 9

G3 X48,163 Y-36,091 R8,5 %Radial milling; point 10

G1 X58,728 Y-38,336 %Straight milling; point 11



G2 X59 Y-44 R59 %Radial milling; point 12

G1 Z5 %Lifting of tool; point 13

M30 %End of program