Field of education:
**Mechanical engineering**

Professional qualification:
**CNC operator**

Exercise:
# Programming of CNC machine (solution)

Variant:
Task 47 – Sprocket 2.5.

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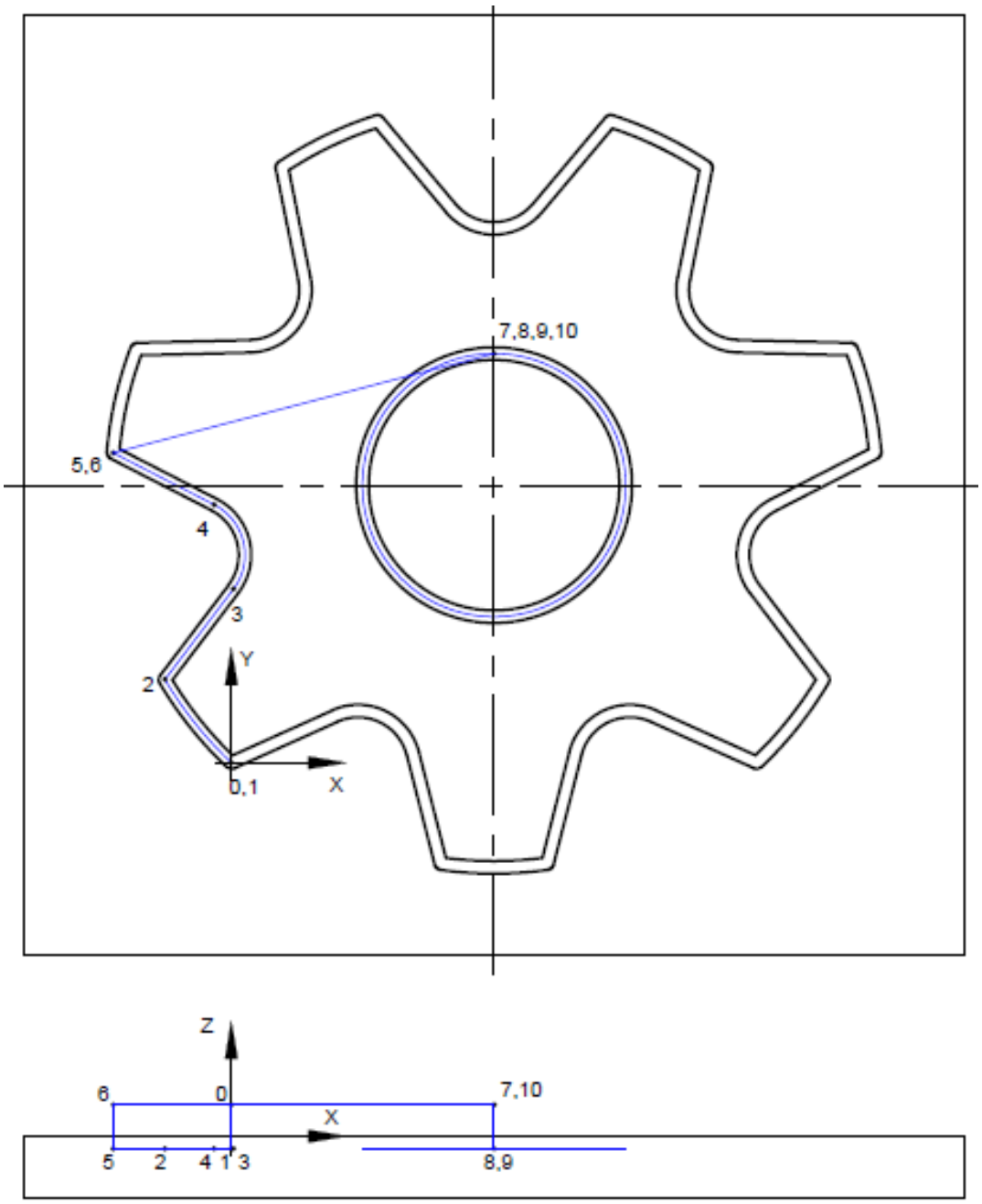
**Solution:**



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

G1 Z-2
G2 X-10,595 Y13,286 R61
G1 X0,357 Y27,745
G3 X-2,711 Y41,188 R9
G1 X-18,852 Y49,463
Z5
G0 X41,929 Y65,305
G1 Z-2
G3 X41,929 Y65,305 I0 J-22
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

G2 X-10,595 Y13,286 R61 %Radial milling; point 2

G1 X0,357 Y27,745 %Straight milling; point 3

G3 X-2,711 Y41,188 R9 %Radial milling; point 4

G1 X-18,852 Y49,463 %Straight milling; point 5

Z5 %Lifting of tool; point 6

G0 X41,929 Y65,305 %Positioning; point 7

G1 Z-2 %Tool entry into material; point 8

G3 X41,929 Y65,305 I0 J-22 %Circle milling; point 9

G1 Z5 %Lifting of tool; point 10

M30 %End of program