

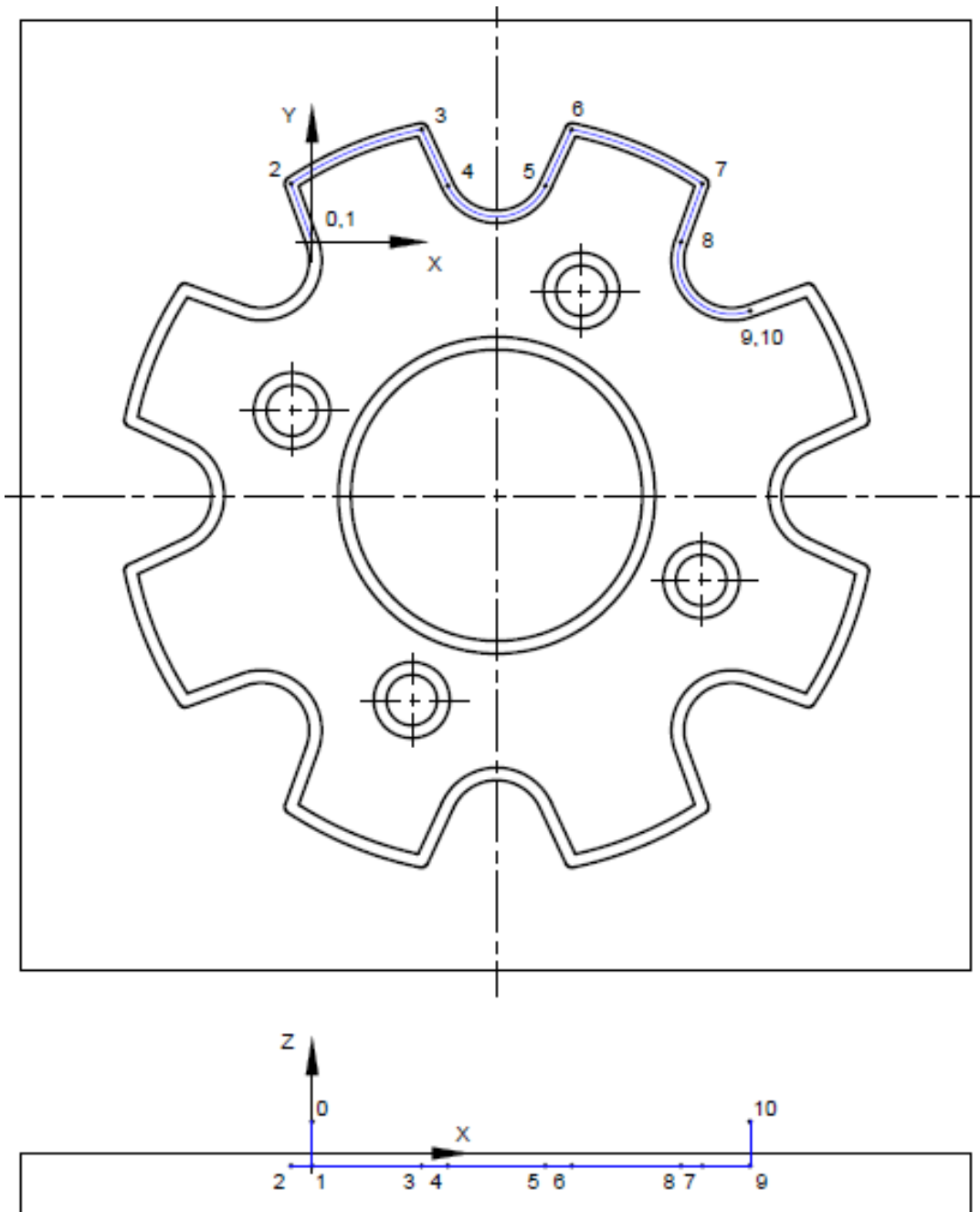
Field of education:  
**Mechanical engineering**

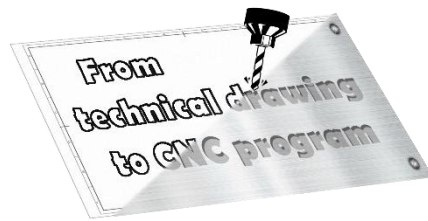
Professional qualification:  
**CNC operator**

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

Variant:  
Task 49 – Sprocket 3.2.

Solution:





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

```
G1 Z-2  
X-3,355 Y9,218  
G2 X17,287 Y17,768 R59  
G1 X21,432 Y9,877  
G3 X36,839 R8,5  
G1 X40,985 Y17,768  
G2 X61,626 Y9,218 R59  
G1 X58,271 Y0  
G3 X69,166 Y-10,895 R8,5  
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  
X-3,355 Y9,218 %Straight milling; point 2  
G2 X17,287 Y17,768 R59 %Radial milling; point 3  
G1 X21,432 Y9,877 %Straight milling; point 4  
G3 X36,839 R8,5 %Radial milling; point 5  
G1 X40,985 Y17,768 %Straight milling; point 6  
G2 X61,626 Y9,218 R59 %Radial milling; point 7  
G1 X58,271 Y0 %Straight milling; point 8  
G3 X69,166 Y-10,895 R8,5 %Radial milling; point 9  
G1 Z5 %Lifting of tool; point 10  
M30 %End of program
```