

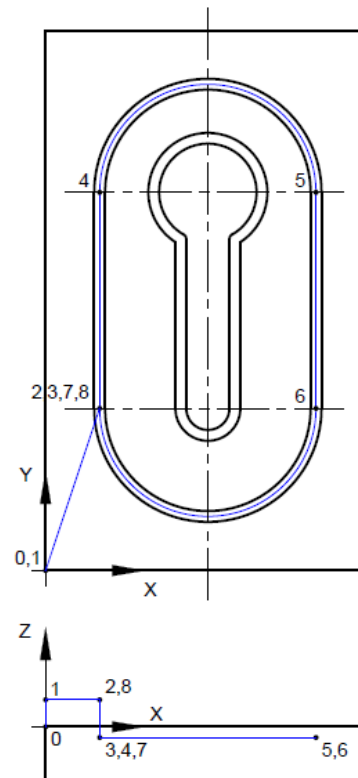
Field of education:  
**Mechanical engineering**

Professional qualification:  
**CNC operator**

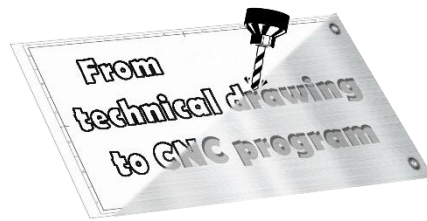
Exercise:  
**Programming of CNC machine  
(solution)**

Variant:  
Task 24 – Support plate 3.1.

Solution:



|        |                   |
|--------|-------------------|
| Task 1 | Measure:<br>M 1:1 |
|--------|-------------------|



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

G0 Z5  
X10 Y30  
G1 Z-2  
Y70  
G2 X50 R20  
G1 Y30  
G2 X10 R20  
G1 Z5  
M30

**Explanation of the G-code:**

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

G0 Z5 %Lifting of tool; point 1

X10 Y30 %Positioning at the starting point; point 2

G1 Z-2 %Tool entry into material; point 3

Y70 %Straight milling; point 4

G2 X50 R20 %Radial milling; point 5

G1 Y30 %Straight milling; point 6

G2 X10 R20 %Radial milling; point 7

G1 Z5 %Lifting of tool; point 8

M30 %End of program