

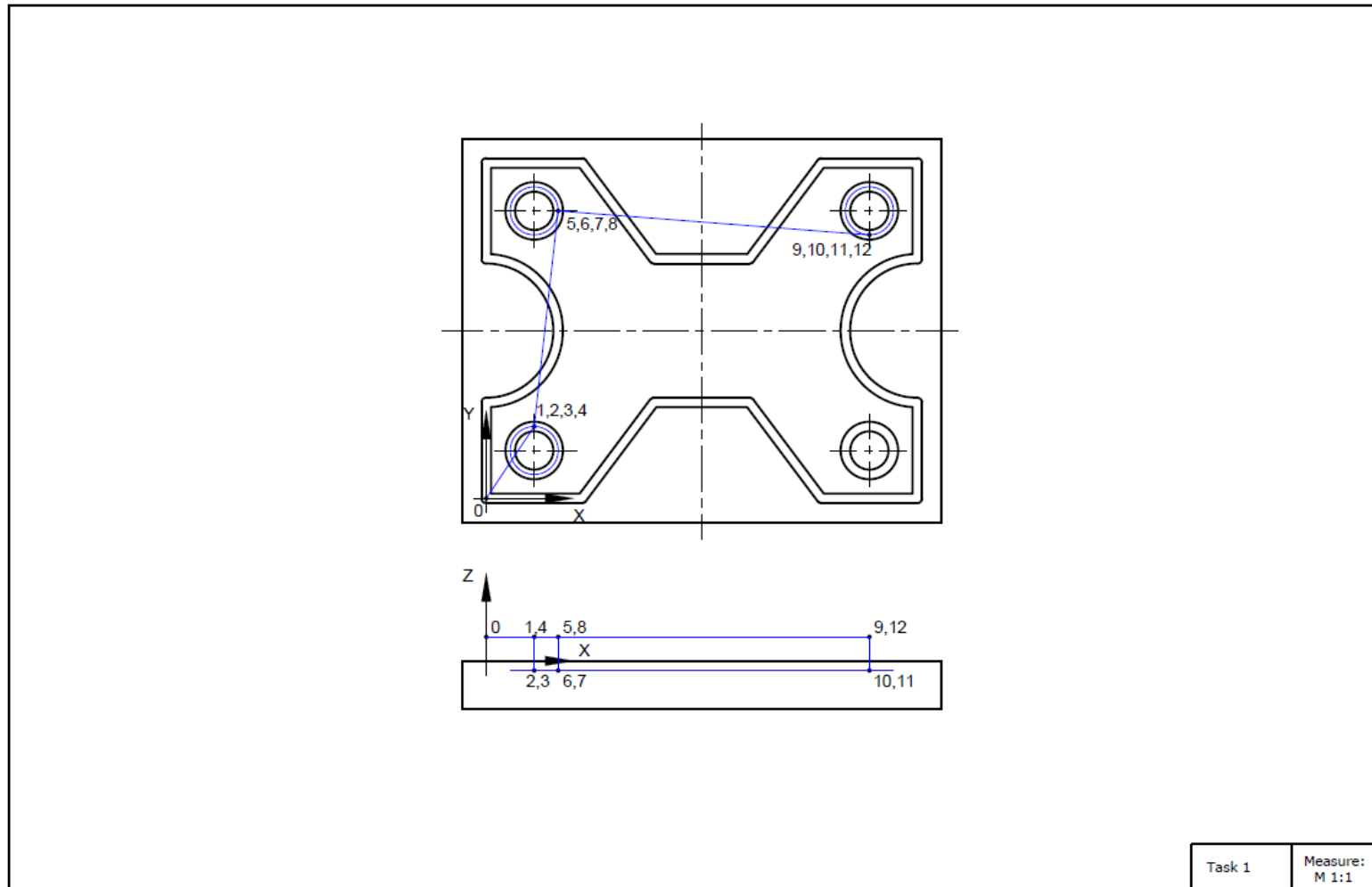
Field of education:
Mechanical engineering

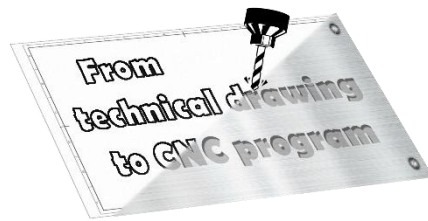
Professional qualification:
CNC operator

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

Variant:
Task 30 – Support plate 4.5.

Solution:





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

```
G0 X10 Y15  
G1 Z-2  
G3 X10 Y15 I0 J-5  
G1 Z5  
G0 X15 Y60  
G1 Z-2  
G2 X15 Y60 I-5 J0  
G1 Z5  
G0 X80 Y55  
G1 Z-2  
G2 X80 Y55 I0 J5  
G1 Z5  
M30
```

Explanation of the G-code:

```
%Setting the coordinate system x=0, y=0, z=5; point 0  
G0 X10 Y15 %Positioning at the starting point; point 1  
G1 Z-2 %Tool entry into material; point 2  
G3 X10 Y15 I0 J-5 %Circle milling; point 3  
G1 Z5 %Lifting of tool; point 4  
G0 X15 Y60 %Positioning; point 5  
G1 Z-2 %Tool entry into material; point 6  
G2 X15 Y60 I-5 J0 %Circle milling; point 7  
G1 Z5 %Lifting of tool; point 8  
G0 X80 Y55 %Positioning; point 9  
G1 Z-2 %Tool entry into material; point 10  
G2 X80 Y55 I0 J5 %Circle milling; point 11  
G1 Z5 %Lifting of tool; point 12  
M30 %End of program
```