

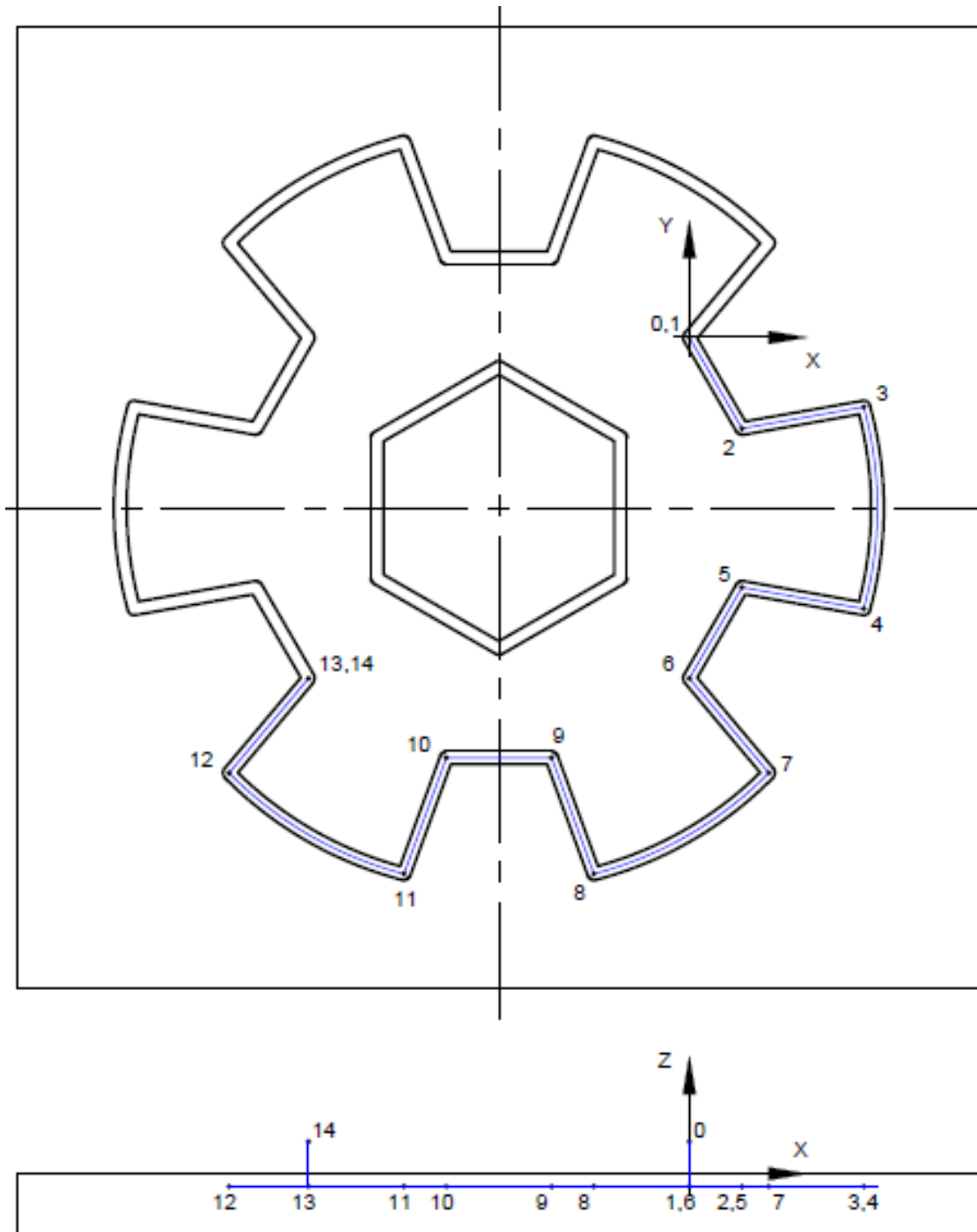
Field of education:
Mechanical engineering

Professional qualification:
CNC operator

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

Variant:
Task 59 – Sprocket 5.2.

Solution:

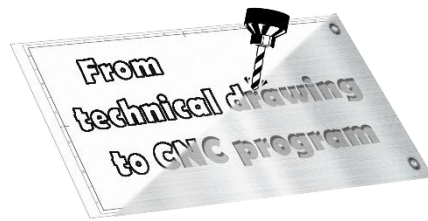


Required written code that should be inserted into the control unit:

G1 Z-2
X8,2 Y-14,203
X27,185 Y-10,856
G2 Y-42,348 R59
G1 X8,2 Y-39
X0 Y53,203
X12,392 Y-67,971
G2 X-14,881 Y-83,717 R59
G1 X-21,475 Y-65,602
X-37,875
X-44,468 Y-83,717
G2 X-71,741 Y-67,971 R59
G1 X-59,35 Y-53,203
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
X8,2 Y-14,203 %Straight milling; point 2
X27,185 Y-10,856 %Straight milling; point 3
G2 Y-42,348 R59 %Radial milling; point 4
G1 X8,2 Y-39 %Straight milling; point 5
X0 Y53,203 %Straight milling; point 6
X12,392 Y-67,971 %Straight milling; point 7
G2 X-14,881 Y-83,717 R59 %Radial milling; point 8
G1 X-21,475 Y-65,602 %Straight milling; point 9
X-37,875 %Straight milling; point 10
X-44,468 Y-83,717 %Straight milling; point 11
G2 X-71,741 Y-67,971 R59 %Radial milling; point 12



G1 X-59,35 Y-53,203 %Straight milling; point 13

Z5 %Lifting of tool; point 14

M30 %End of program