D463R1-2 task .pdf

1. feladat

N1 = 226

$$
\begin{array}{r|l}
226 & 0 \\
113 & 1 \\
56 & 0 \\
28 & 0 \\
14 & 0 \\
7 & 1 \\
3 & 1 \\
1 & 1 \\
\end{array}
$$

__11100010__

N2 = 3950

$$
\begin{array}{r|l}
3950 & 0 \\
1975 & 1 \\
987 & 1 \\
493 & 1 \\
246 & 0 \\
123 & 1 \\
61 & 1 \\
30 & 0 \\
15 & 1 \\
7 & 1 \\
3 & 1 \\
1 & 1 \\
\end{array}
$$

__111101101110__

N3 = 2025

$$
\begin{array}{r|l}
2025 & 1 \\
1012 & 0 \\
506 & 0 \\
253 & 1 \\
506 & 0 \\
126\;253 & 1 \\
63\;126 & 1 \\
31\;63 & 1 \\
15\;31 & 1 \\
45 & 1 \\
3\;7 & 1 \\
1\;3 & 1 \\
1 & 1 \\
\end{array}
$$

__11111101001__

2. feladat

N1 = 6 3 7
        16^2 16^1 16^0

$$12 \cdot 16^2 + 3 \cdot 16^1 + 15 \cdot 16^0$$
$$3072 + 48 + 15 = 3135$$

__110000111111__

$$
\begin{array}{r|l}
3135 & 1 \\
1567 & 1 \\
783 & 1 \\
391 & 1 \\
195 & 1 \\
97 & 1 \\
48 & 0 \\
24 & 0 \\
12 & 0 \\
6 & 0 \\
3 & 1 \\
1 & 1 \\
\end{array}
$$

N2 = B 7 A
        11 7 10

$$11 \cdot 256 + 7 \cdot 16 + 10 \cdot 1$$
$$2816 + 112 + 10 = 2970$$

1011011110

$$
\begin{array}{r|l}
2930 & 0 \\
1469 & 1 \\
734 & 0 \\
367 & 1 \\
193 & 1 \\
91 & 1 \\
45 & 1 \\
22 & 0 \\
11 & 1 \\
5 & 1 \\
2 & 0 \\
1 & 1 \\
\end{array}
$$

N3 = F F 2
        15 15 2

$$15 \cdot 256 + 15 \cdot 16 + 2$$
$$3840 + 242 = 4082$$

$$
\begin{array}{r|l}
4082 & 0 \\
2041 & 1 \\
1020 & 0 \\
510 & 0 \\
255 & 0 \\
127 & 1 \\
63 & 1 \\
31 & 1 \\
15 & 1 \\
\end{array}
\qquad
\begin{array}{r|l}
7 & 1 \\
3 & 1 \\
1 & 1 \\
\end{array}
$$

111111110010