4.6.1

a) $100011_2 = \overset{5\,4\,3\,2\,1\,0}{100011} = 1 \cdot 2^5 + 0 + 0 + 0 + 1 \cdot 2^1 + 1 = 32 + 2 + 1 = 35_{10}$

b) $110011_2 = 1 \cdot 2^5 + 1 \cdot 2^4 + 0 + 0 + 1 \cdot 2^1 + 1 = 32 + 16 + 2 + 1 = 51_{10}$

c) $100000_2 = 1 \cdot 2^5 = 32_{10}$

d) $110100 = 1 \cdot 2^5 + 1 \cdot 2^4 + 0 + 1 \cdot 2^2 + 0 + 0 = 32 + 16 + 4 = 52_{10}$

4.6.2

a) 50_{10}

50	2
0	25 2
1	12 2
0	6 2
0	3 2
1	1

$50_{10} = 110010_2$

b) 66_{10}

66	2
0	33 2
1	16 2
0	8 2
0	4 2
0	2 2
0	1

$66_{10} = 1000010_2$