Binary practice:

What number is this 4-bit binary number: 0111?

8	4	2	1
0	1	1	1

7

What number is this 8-bit binary number: 01101010?

128	64	32	16	8	4	2	1
0	1	1	0	1	0	1	0

106

What number is this 8-bit binary number: 00000111?

128	64	32	16	8	4	2	1

What number is this 8-bit binary number: 11000001?

128	64	32	16	8	4	2	1
1	1	0	0	0	0	0	1

193

Convert 5 to a 4-bit binary number

8	4	2	1
0	1	0	1

5 ✓

Convert 97 to an 8-bit binary number

128	64	32	16	8	4	2	1
0	1	1	0	0	0	0	1

97 33 ✓

Show the work for the division by 2 method to convert 11 to binary:

11 ÷ 2 = 5 r 1

5 ÷ 2 = 2 r 1

2 ÷ 2 = 1 r 0

1 ÷ 2 = 0 r 1

1011

Show the work for the division by 2 method to convert 54 to binary:

54 ÷ 2 = 27 r 0

27 ÷ 2 = 13 r 1

13 ÷ 2 = 6 r 1

6 ÷ 2 = 3 r 0

3 ÷ 2 = 1 r 1

1 ÷ 2 = 0 r 1

110110

Use the multiplication method to turn 10110_2 into a decimal:

10110 | 0 × 2 = 0

0110 | 0 + 1 = 1 × 2 = 2

110 | 2 + 0 = 2 × 2 = 4

10 | 4 + 1 = 5 × 2 = 10

0 | 10 + 1 = 11 × 2 = 22

22 + 0 = 22 Done