

Binary Conversion Practice

Binary Places: 32, 16, 8, 4, 2, 1

Convert these binary numbers to decimal:

1

10

11

100

101

1000

1011

1100

10101

11111

Convert these decimal numbers to binary:

1

2

3

8

9

10

15

16

17

18

Answer Key
Bin to Dec Dec to Bin

1	1
2	10
3	11
4	1000
5	1001
8	1010
11	1111
12	10000
21	10001
31	10010

Binary Addition Practice

Place-by-place rules

When carry from right is 0

	0	1	0	1
	<u>+0</u>	<u>+0</u>	<u>+1</u>	<u>+1</u>
Carry	0	0	0	1
Sum	0	1	1	0

When carry from right is 1

	0	1	0	1
	<u>+0</u>	<u>+0</u>	<u>+1</u>	<u>+1</u>
	0	1	1	1
	1	0	0	1

Add these binary numbers:

1	01	10	11	11	100
<u>1</u>	<u>10</u>	<u>10</u>	<u>01</u>	<u>11</u>	<u>101</u>

1001	1100	1000	10101
<u>0111</u>	<u>0101</u>	<u>0011</u>	<u>01111</u>

Answer Key

10
11
100
100
110
1001
10000
10001
1011
100100