This is CS50 AP.

binary number system

binary

0, 1

decimal

0, 1, 2, 3, 4, 5, 6, 7, 8, 9

1 2 3

1

1 2 3

10 1

1 2 3

100	10	1
1	2	3

100	10	1
1	2	3

$$100 \times 1 + 10 \times 2 + 1 \times 3$$

100	10	1
1	2	3

100 + 20 + 3

4 2 1

0 0 0

4 2 1

0 0 1

4 2 1

0 1 0

4 2 1

0 1 1

4 2 1

1 0 0

4 2 1

1 0 1

4 2 1

1 1 0

4 2 1

1 1 1

Binary math

Write 57 in binary

Binary math

Write 182 in binary

Decimal math

Add 134 + 27

Binary math

In binary, add 1010101 + 11101

Binary math

In binary, add 1110111 + 1011101

Binary math

In binary, subtract 1010101 - 11101