Text > Unicode > World Standard for Binary symbols

ASCII > 7 bit standard 1010101 0000000-1111111

Del key = 127 (1111111)

A = 0041 hexadecimal – 1000001

1234 > 1\*10^3+2\*10^2+3\*10^1+4\*10^0

1001>1\*2^3+0\*2^2+0\*2^1+1\*2^0

A4F > A\*16^2 + 4\*16^1 + F\*16^0

(A=10)

= 2560 + 64 + 15 = 2639

A > 65 (decimal) > 01000001

a > 97 (decimal) > 01100001 (toggle between upper and lower)

‘0’ > 48 > 00110000

‘1’ > 49 > 00110001

‘2’ > 50 > 00110010

‘/n’ universal for all operating system meaning enter/carriage return

**11**

**1 1 11**

**0 1 11**

**1 10 110**

How to represent whole numbers in a computer

Twos Complement

0000 > 0

0001 > 1

0101 > 5

0111 > 7

1000 > 8

1111 > 15

0000 > 0

0001 > 1

0101 > 5

0111 > 7

1000 > -0

1111 > -7

0101 > 5

Flip the bits

1010

Add one

1011 > -5

1111 > -

0000

+1

0001

4 bits

0000 > 0

0001 > 1

0010 > 2

0011 > 3

0100 > 4

0101 > 5

0110 > 6

0111 > 7

1000 > -8

1001 > -7

1010 > -6

1011 > -5

1100 > -4

1101 > -3

1110 > -2

1111 > -1

Can’t represent +9 in 4 bit sequence.

111

**1111 > -1**

**1111 > -1**

**1110 > -2**